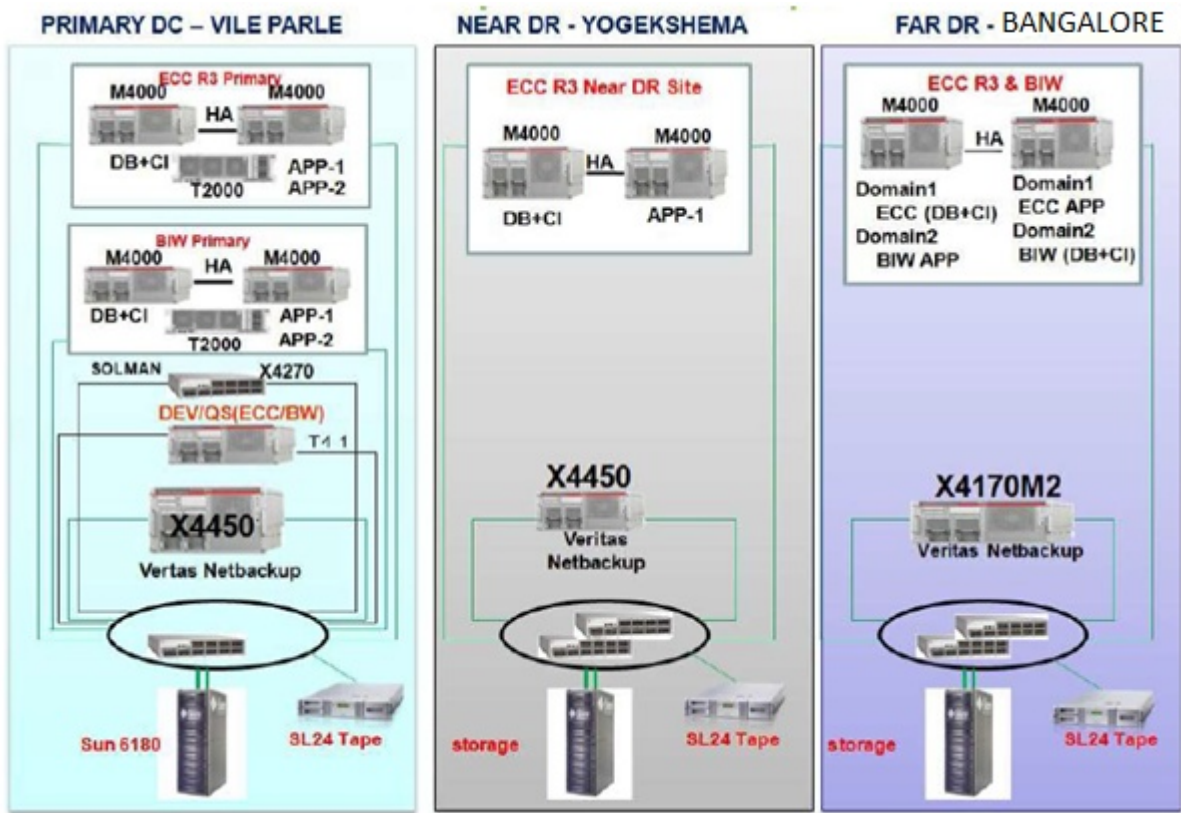


Technical Scope of Work Application Migration

All Phases

Corrigendum : Table A –Diagrammatic Representation of AS-IS System Landscape :



Application Migration of Existing SAP system into SAP S/4 HANA

Broad level Scope of Work related to application migration which is further divided into 3 phases:

- 1. SOW for Migration Phase**
- 2. SOW for Development & Maintenance Phase**
- 3. SOW for Support Phase**

It is expected that the bidder is already experienced in SAP ERP modules and hence the Broad scope of work for application migration is presented in this document. The bidder through its own experience, expertise and resources need to do a due diligence on the scope of activities needed to complete the project scope to ensure that the project is delivered with due quality, no slippages and in the timeline expected.

The project being classified as one of the mission critical projects, the bidder shall at all times ensure due seriousness while deploying resources for the project execution as well as during the entire contract period.

The Standard to be applied to determine satisfactory completion of the activities mentioned in the SOW (all phases) will be its usage in Production as well as DR environment and obtaining of desired results.

1. Scope of Work for Migration Phase		
(As Is Migration of On-Premise SAP ECC Systems to On-Premise S4 HANA).		
Sl No	Technical / Functional Area	Major Activities to be Completed
1	SAP ERP	Conversion FROM SAP ECC 6.06 running on Oracle DB 11g, Sun Solaris 10 To the latest S4 HANA System. This includes Migration of all programs, DDICs, code lines to S/4 HANA (technical migration) and Migration of existing data in the dropped tables to the new simplified table structures (functional migration). Readiness Check as performed by SAP for the SAP S4HANA1809 version for existing ECC Systems for HANA Conversion is available below. It also includes new customization and development required in HANA environment to make AS IS functionality available. Any Configuration or Development needed to activate or implement functionality to overcome 12 digit limitation of ECC in all S4HANA modules is within scope of AS IS migration.
2	SAP BW	Conversion of SAP BW 7.0 running on Oracle DB 11g Solaris 10 to BWOH initially, finally to be converted to the BW4HANA platform in the subsequent phase. Custom code adjustments in CMOD and function

		modules. Conversion of non-compatible BW objects to make it compatible in BW4HANA. Manual redesign of the data model, existing queries and workbooks. Details as per Table 2
3	SAP Router	New Setup - Latest Version with integration of all Systems
4	Solution manager	SAP Solution manager latest version implementation with the following functions. • Complete and proactive technical monitoring for S4 HANA and BW systems • Early Watch Alert setup.
5	SAP Custom Code	SAP Custom code adjustments for making it compatible with HANA. Custom code remediation/ SPAU/SPDD corrections to be performed. Detailed list of Custom Codes bifurcated into SAP Object Wise list as per Table 1.
6	DR Set up	FAR and NEAR Disaster Recovery systems and procedure to be configured and activated for the entire landscape and the FAR DR shall be an exact replica of the Production/ Primary site , NEAR DR will have only Production Systems. The details are specified in Annexure-Q.
7	BASIS support	Required BASIS support for Upgrade / Migration activities during Migration Phase, including technical support for activities required to be done at source systems
8	Data Migration	Conversion / migration of all Data available in existing SAP Systems to the latest released version of SAP S4HANA without any data loss or netting.
9	All Infrastructure, Operating system and database related activities	All activities to keep the system updated at all times till the final GO-Live and signoff till the period of Hyper care is over. Activities such as File system creation, partitioning, OS update, database management, application setup, configurations, zoning, GUI conversion, custom code handling, backup, patch management, enabling DR setup and testing DR, etc. and taking care of LICs requirement of Maintaining SAP Login level Uptime of 99.95%.
10	System Performance	To optimally set the parameters of target systems to ensure optimal performance of all the deployed systems with the ultimate aim of Maintaining SAP Login level Uptime of 99.95%.
11	Knowledge Transfer	Knowledge Transfer pertaining to the Migration Phase with complete infrastructure setup, inventory of all systems and system configuration and management documentation to be delivered to the Core Team.
12	Compliance Requirement	To comply with various security guidelines : IRDAI's system audit of investment department IRDAI's guidelines on information and cyber security for insurers Other guidelines issued by NCIIPC, Cert-In etc.
13	High Availability	Primary and Far DR to be equipped with High Availability configuration.

Table 1: R3 Custom Objects to be migrated during Migration Phase

Summary of Custom Objects - (Other than Domains, Data elements, Tables, Structures, Views, Search Helps)

Type of Custom Object	Count of Custom Object	Remarks
Programs / Reports	346	Some of these Programs / Reports may contain multiple “Includes”. Total number of such “ includes” is around 306
Function Modules	108	Excluding auto generated ones like those generated by Smartforms, Table Maintenance etc.
Enhancements - Individual and Composite	61	
Smartforms	129	
Sapscripts	35	To be migrated as Smartforms
Classes	34	Includes BADI activated in System
BW Function groups	14	

Note: The above numbers of custom objects are best estimates extracted from SAP ECC6 Production Server as on 10.01.2021. The actual numbers that need migration may vary by up to 10 % . The System generated programs / codes / objects from SPRO-configurations, etc. are not considered in the above estimate.

Table 2: List of BW Custom Objects to be migrated during Migration Phase

Name of Custom Object	Count of Custom Object	Remarks
BW Queries	516	Includes queries embedded in Workbooks
BW Workbooks	76	

Summary of BW Custom Objects

Type	Numbers active
Info providers	7
Multi providers	18
DSOs	37
Info areas	5
Info sources	2

Info objects	379
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Note: The above numbers are the best estimates extracted from SAP BW Production Server as on 10.01.2021. The actual numbers that need migration may vary by upto 10 %.

2. Scope of Work for Development & Maintenance Phase		
Sl No	Technical / Functional Area	Major Activities to be Completed
1	Solution Manager	Activation and Configuration of CHaRM and ITSM functionalities
2	SAP Fiori	• SAP Fiori Set up (Dev/Quality/Prod) using embedded gateway within S4H • SAP Web-Dispatcher Setup and configuration (for S4H & Fiori landscape). • Gateway and Fiori frontend server configuration / reconfiguration after system upgrade- Standard App activation. • Set up Fiori Launchpad and Launchpad Designer. • Role matrix for the Fiori Role with apps and Catalogs. • Activation of all Standard Fiori Apps and 25 custom apps. • Minimum of 100 FIORI Screen Development • Knowledge transfer to LIC team through onsite training and documentation.
3	BW4HANA Migration from BW on HANA	Upgrade to latest version BW4HANA from BWOH – Set up, Migration and Go-live and Post Go-live support. Do all activities including data modeling, required for migrating and making live the existing reports. Integration with Business Objects for Reporting as well as dashboards.
4	BW Quality	Quality system to be developed for BW4HANA BW Quality to be included in Primary and FAR DR setup and landscape ETL connection between S4 Quality and BW4HANA Quality
5	Business Objects and Lumira - latest version	This will be the portal for all reporting needs of the Investment Departments. • Installation and Integration with S4HANA, BW4H. • Landscape setup. • Universe creation • Views Creation for various subject areas • Data Modeling • ETL • Roles and authorizations. • Audit Enablement for reports and usage. • Mobile reporting Development of 10 reports with medium level complexity, 15 reports with high level complexity based on BW4HANA database and creation of minimum of 2 complex dashboards reflecting the

		entire Investment Universe.
6	Process Integration	SAP PO latest version- New Installation (4 tier) and Mandatory technical activities for new PI interfacing server Development of 15 New Interfaces (Given below this table) using PO to replace existing upload / download from Desktop and / or other methods
7	Custom Code Push Down - CDS views	Enabling in-memory/embedded analytics by Optimizing 10 critical Custom Codes as determined by LIC for Code push-down at database level and further generating reports through the same.
8	2 Factor / Biometric Authentication for login	2 Factor Biometric Authentication for login to SAP Systems using LIC's existing biometric solution.
9	New GRC Installation - latest version	DEV/Quality/Production with Full landscape at Primary and FAR DR.Production at NEAR DR. To be integrated with SAP Router Implementation of Access and Process Controls for TRM, FI, Cash Management and Loans Module.Automate access assignments across SAP and non-SAP systems Details of Access Controls Following components of GRC Access Controls 12.x • Access Risk Analysis (ARA) • Emergency Access Management (EAM) • Business Role Management (BRM) • Access Request Management (ARM) • User Access Review (UAR) Standard GRC SOD rule book to be enabled for SAP S4 Hana system and the same to be modified for any SOD risk not relevant as per business requirement given by LIC team. For Treasury and Loan management custom SOD risk will be created based on the inputs from the process owners for rest of the module standard SOD rule book will be implemented. IRDAI limits/ Exposure triggers and breaches to be implemented in GRC (currently trigger management is handled in ECC using custom code). Create the mitigation controls for certain risks that cannot be remediated, subject to maximum of twenty controls across all modules as per inputs received from business. Two Emergency access management (Firefighter), access request workflow to be configured for assignment of FF id's to the users Firefighter Ids will be created based on information provided. User access management workflows to be configured for user provisioning in all system. Minimum four workflows, as per standard available workflow functionality Standard SAP GRC reports, and dashboards to be configured and enabled Custom automated controls to be configured wherever required

10	Forms	Conversion of all existing SAP Script forms to Smart Forms- Refer Table 2
11	Web Dispatcher	Installation of latest version with integration of S4H and GRC access - Production primary and far DR
12	TWRR	Configuration and development needed for generation of Time Weighted Rate of Return as per IRDA requirement.
13	BASIS support	Support throughout the project duration to assist with end to end systems management, technical configuration / troubleshooting, system integration, System Integrations Test (SIT) / User Acceptance Test (UAT) support, cutover support and post go-live assistance.
14	Core Team Training	Conduct of workshops with detailed documentation for Core team on • Fiori implementation, design and Deployment(including SAPUI5) • SolMan - covering All utilities which are activated • GRC- all modules, • PO- All processes which are integrated, • CDS Views • Differences in ABAP Development (including tools like Eclipse) between ECC and HANA • BW4HANA modeling and ETL Processes. • Business Objects Data Modeling, ETL as well as Report and Dashboard creation. Management of Data Refresh at the BO level, integration with Analysis Office. • HANA database management & daily monitoring. • Embedded Analytics and Code pushdown- Hands on training. • Backup and Restore Training
Knowledge Transfer with Complete documentation pertaining to all activities of the Development and Maintenance Phase to Core Team.		

Details of Interfaces for PO							
Sl no	Name of Process	Inward / Outward	Source	How uploaded	Validation	Target	Frequency
1	Rating upload	In	File downloaded from vendor website after giving credentials.	Custom code	Yes - through Custom code	SAP Standard table	Daily
2	Prove ss	In	File downloaded from desktop	Custom code	Yes - through Custom code	SAP Custom	Daily

	upload		application			Table	
3	Capita line upload	In	File downloaded from desktop application	Custom code	Yes - through Custom code	SAP Custom Table	Daily
4	Bank Collec tion upload	In	File received by email / API	Custom code	Yes - through Custom code	SAP Custom Table	
5	NAV file upload	Out	File generated by custom code on desktop	Custom code	Yes - through Custom code	Another server on LAN	Daily
6	Corpor ate Action upload	In	File received by email	NEW - to be develop ed	Yes	SAP Standard table	Weekly / Daily
7	ULIP Units Uploa d	In	File received on Staging Server	Custom code	Yes	SAP Custom Table with Accounting	Daily
8	Corpor ate Bond Spread upload	In	File downloaded from vendor website after giving credentials.	Custom code	Yes	SAP Custom Table	Fortnightly / Daily
9	Corpor ate Event upload	In	File downloaded from vendor website.	Custom code	Yes	SAP Custom Table	Fortnightly
10	E Voting upload	Out	File generated in SAP - downloaded on desktop	Website using credenti als	Yes	Website	Weekly
11	Bank RTGS	Out	To be generated from SAP	Website using credenti als	Yes	Website	Daily

12	FIMM DA Base Curve upload	In	File downloaded from vendor website after giving credentials.	Custom code	Yes	SAP Standard table	Weekly
13	STP	In and Out	NSEIT / Financial technology gateway. In files are 515 brokers' execution files. Out files are 541/543 Custodian files	Custom code	Yes	SAP Custom Table	Daily
14	NDS and related CCIL Applic ations	In	CCIL gateway	Custom code	Yes	SAP Standard T Code	Daily
15	Bank Statem ent	In	Email - MT940 Format	Standar d T code	Yes	SAP Standard Table	Daily

3. Scope of Work for Support Phase (Support and Maintenance of HANA SOLUTION).

Sl . No	Technical /Functional Area	Major activities to be completed
1	Hardware monitoring	Complete Infrastructure monitoring for all sites with SLA Management of 99.95% of SAP server level login. Support shall be provided by the bidder in such a way that, for Mumbai Data Centers, whenever required, services shall be provided on premise and for Bangalore Data Centre, the Service Levels may be ensured by remotely accessing. However, in exceptional situations, this shall not prevent LIC from seeking on premise services in Bangalore as well.
2	Installation of latest upgrades/patches	Installation of latest upgrades of OS, DB and APPLICATION as and when required atleast Once in a year. High risk/security patches to be proactively monitored and immediately applied in consultation with LIC.
3	All Documentations relating to BASIS Activities.	To provide all Documentations relating to system maintenance at OS/DB/Application level to be carried out by LIC.
4	Compliance Requirement	To comply with various security guidelines : IRDAI's system audit of investment department IRDAI's guidelines on information and cyber security for insurers Other guidelines issued by NCIIPC, Cert-In etc.
5	Vulnerability Assessment (VA) and Configuration Audit (CA) compliance	Compliance to VA/CA reports as per requirement.
6	AMC /Warranty for the entire Hardware to be provided by the bidder	AMC/Warranty for the entire Hardware to be provided by the bidder with back lining of Hardware support from OEM.

Readiness Check for S4 HANA on SAP S4HANA version 1809

The following readiness check conducted by SAP is being shared as a part of the RFP, to assist the bidders to define and estimate the correct scope of migration. However bidders to note that the readiness check is done on the S4 HANA version 1809, whereas the version to be implemented in this project shall be the latest released version of S4 HANA.

SAP Readiness Check for SAP S/4HANA version 1809 Covering {\$-SPROD_VERSS-\$}

Customer Name	Life Insurance Corporation of India
Customer Number	0000402902
System ID	RP1
Date of Analysis	07/05/2018

SAP SE
Dietmar-Hopp-Allee 16
D-69190 Walldorf
SAP Digital Business Services

Relevant Contents

1 Introduction

Scope of This Document

1.3 Disclaimers

1.4 Analysis Scope

2 Minimum System and Landscape Requirements for a System Conversion to SAP S/4HANA

2.1 Add-On Compatibility

2.2 Active Business Functions

2.3 Recommended Additional Checks

3 Required Solution Adjustments for a System Conversion to SAP S/4HANA

3.1 SAP S/4HANA Simplification Items

....3.1.1 Relevant Simplification Items

....3.1.2 Simplification Items with Relevance to be Checked

....3.1.3 Relevant Non-Strategic Simplification Items

....3.1.4 Non-Strategic Simplification Items with Relevance to be Checked

3.2 Recommended Additional Checks

4 Required Custom Code Adjustments for a System Conversion to SAP S/4HANA

4.1 Custom Code

5 Required Adjustments for BW Extractors

6 Additional Information for a System Conversion to SAP S/4HANA

6.1 Recommended SAP Fiori Applications for SAP S/4HANA

6.2 Business Process Analytics

6.3 SAP Custom Development Projects

1 Introduction

Scope of This Document

SAP Readiness Check for SAP S/4HANA enables you to better understand the implications of a conversion from an existing SAP ERP system to SAP S/4HANA. The check helps to identify necessary preparations and pre-projects in the current system landscape, long before an SAP S/4HANA system conversion project starts.

The results of SAP Readiness Check for SAP S/4HANA – for the system ID given on the front page – are presented in this document.

For useful transactional data and history, we recommend running SAP Readiness Check for SAP S/4HANA on a production system (or a recent copy of one). SAP Readiness Check for SAP S/4HANA includes system-specific information on adjustments that are mandatory for the conversion to SAP S/HANA

- Add-on compatibility
- Active business functions
- SAP S/4HANA simplification items
- Custom code

In addition, SAP Readiness Check for SAP S/4HANA provides system-specific information regarding:

- SAP Custom Development projects
- SAP HANA sizing and Data Volume Management
- SAP Business Process Analytics
- Required Adjustments for BW Extractors

1.3 Disclaimers

SAP does not guarantee the completeness of SAP Readiness Check for SAP S/4HANA. The readiness check is designed as a first check in system conversion planning.

The simplification list for SAP S/4HANA and its related restrictions continue to evolve, meaning some restrictions may be temporary. Also, a customer may expand the solution. The readiness check's results reflect a specific point in time for the system in scope.

While a customer might not use some installed functions, the SAP Readiness Check for SAP S/4HANA does not in every case differentiate between used and installed components.

SAP recommends that customers carefully read the simplification list's introduction on https://help.sap.com/viewer/p/SAP_S4HANA_ON-PREMISE. The introduction contains important information on how to interpret the simplification items.

SAP also recommends that customers always check the latest release restriction notes which might contain additional restrictions not maintained in the simplification list.

SAP Readiness Check for SAP S/4HANA's custom code analysis identifies mandatory change areas due to the simplified application architecture of SAP S/4HANA. Custom code analysis does not contain a list of all adaptations necessary to support SAP HANA as a database. In addition, the analysis does not include general prerequisite adaptations for SAP HANA database migration. Lastly, the analysis does not include requisite adaptations for future add-ons or for custom code unrelated to SAP S/4HANA.

1.4 Analysis Scope

SID of System of Analysis	Date of Analysis
RP1	07/05/2018

SAPS/4HANA: TARGET PRODUCT VERSION

Product	Product Version
SAP S/4HANA	SAP S/4HANA 1709

INSTALLED PRODUCT VERSION

SID	Installed Product Version
RP1	EHP6 FOR SAP ERP 6.0

CURRENT DATABASE

SID	Database System	DB ID	Unicode
RP1	ORACLE	RP1	Yes

OPERATING SYSTEM / SAP KERNEL

SID	Operating System	OS Version	SAP Kernel Release
RP1	SunOS	5.10	722

2 Minimum System and Landscape Requirements for a System Conversion to SAP S/4HANA

The following section contains information on the compatibility of the installed add-ons and active business functions with SAP S/4HANA. It also provides information on additional important checks that are not provided as part of SAP Readiness Check for SAP S/4HANA.

2.1 Add-On Compatibility

OVERVIEW BY STATUS

Status	Number of Add-Ons
Unknown	1

SAP ADD-ONS ARE NOT (YET) SUPPORTED FOR SAPS/4HANA

None

SOFTWARE COMPONENT VERSIONS NOT ASSIGNED TO ANY INSTALLED PRODUCT VERSION

Software Component	Status	SAP Note
EA-HRCUN 600[0]	Unknown	

3RD PARTY ADD-ONS

None

For 3rd party add-ons, please contact the vendor directly to confirm that the respective add-on is released for SAP S/4HANA in its current version or in a successor version.

If an add-on is no longer required, please check with the vendor if a package for uninstalling the add-on is available.

The following SAP Notes contain more information on SAP and 3rd party add-ons for SAP S/4HANA.

SAP Note	Description
2214409	SAP S/4HANA: Compatible Add-ons

There may be licensing implications regarding the upgrade of an add-on to a compatible SAP S/4HANA version of the add-on. Please check with SAP and the respective vendors of the 3rd party add-ons for potential license implications when converting to SAP S/4HANA.

LINK TO THE COMPLETE LIST OF ADD-ONS

[https://launchpad.support.sap.com/#readiness/TransactionSet\('8987770000010142'\)/ObjectPage/section/addon/Type=S4_HANA](https://launchpad.support.sap.com/#readiness/TransactionSet('8987770000010142')/ObjectPage/section/addon/Type=S4_HANA)

2.2 Active Business Functions

OVERVIEW BY STATUS

None

No business function information available, check maintenance planner for more information.

BUSINESS FUNCTION ARE NOT (YET) SUPPORTED FOR SAP S/4HANA

There are no incompatible business functions.

No business function information available, check maintenance planner for more information.

The following SAP Notes contain more information on Business Functions and SAP S/4HANA:

SAP Note	Description
2240359	SAP S/4HANA: Always-Off Business Functions
2240360	SAP S/4HANA: Always-On Business Functions
2333141	SAP S/4HANA 1610: Restriction Note
2491467	SAP S/4HANA 1709: Restriction Note

LINK TO THE COMPLETE LIST OF ACTIVE BUSINESS FUNCTIONS

[https://launchpad.support.sap.com/#readiness/TransactionSet\('8987770000010142'\)/ObjectPage/section/businessfunction/Type=S4_HANA](https://launchpad.support.sap.com/#readiness/TransactionSet('8987770000010142')/ObjectPage/section/businessfunction/Type=S4_HANA)

2.3 Recommended Additional Checks

Please note that in addition to the checks above provided by SAP Readiness Check for SAP S/4HANA, additional restrictions and landscape requirements may be relevant for your system.

Please read the following SAP Notes carefully:

SAP Note	Description
2500467	SAP S/4HANA OP1709, Globalization & Country Versions: Release Information & Restriction Note
2495662	SAP S/4HANA 1709: Process Integration with SAP on-premise Solutions
2251604	Version Interoperability between SAP S/4HANA On Premise Edition and SAP NetWeaver Systems

3 Required Solution Adjustments for a System Conversion to SAP S/4HANA

3.1 SAP S/4HANA Simplification Items

A comprehensive overview of all simplifications for SAP S/4HANA 1709 compared to the SAP Business Suite products – that is, all mandatory solution adjustments in a system conversion project – is captured in the **Simplification List for SAP S/4HANA** at https://help.sap.com/viewer/p/SAP_S4HANA_ON-PREMISE.

This section of the SAP Readiness Check displays those simplification items (out of the overall list of more than 470 items) that are relevant for your specific SAP ERP 6.x system installation. The identification mainly relies on table contents and used transactions. **For accurate results we recommended that you run the SAP Readiness Check for SAP S/4HANA on an SAP ERP 6.x production system with at least a four week-long transaction history.**

GENERAL STATISTICS

Status	Number of Objects
Overall number of Simplification Items	535
Check performed, item is not relevant. No follow-up activity necessary.	491
Check performed, item is relevant (excludes “ <i>non strategic items</i> ”). Check business impact note.	31
Relevance cannot be automatically determined. (excludes “ <i>non strategic items</i> ”). Check business impact note.	6
Check performed, “ <i>non strategic</i> ” item is relevant. Check business impact note.	5
Relevance for “ <i>non strategic</i> ” item cannot be automatically determined. Check business impact note.	2

3.1.1 Relevant Simplification Items

The following table lists simplification items that have been checked and are immediately relevant:

RELEVANT SIMPLIFICATION ITEMS

Application Area	Title	Category	SAP Note	Relevance
Cross Topics	S4TWL - BI Extractors in SAP S/4HANA SI18: CT_BW_EXTRACTORS	Functionality unavailable (equivalent exists)	<u>2500202</u>	Item is relevant. DB table 'ROOSOURCE' based check. Relevant criteria is '>0' and number found is 1 .

Application Area	Title	Category	SAP Note	Relevance
Cross Topics	S4TWL - Business User Management SI21: BUSINESS_USER	Change of existing functionality	<u>2570961</u>	Item is relevant. DB table 'USR02' based check. Relevant criteria is '>0 ' and number found is 1 .
Cross Topics	S4TWL - JOB SCHEDULING SI8:CROSS_BC_CCM-BTC	Change of existing functionality	<u>2318468</u>	Item is relevant. DB table 'CVERS' based check. Relevant criteria is '>0 ' and number found is 1 .
Financials - Cash Management	S4TWL - CASH MANAGEMENT - GENERAL SI1_FIN_CM	Change of existing functionality	<u>2270400</u>	Item is relevant. DB table 'FDSR' based check. Relevant criteria is '>0 ' and number found is 1 .
Financials - Controlling	S4TWL - Profitability Analysis SI9: FIN_CO	Change of existing functionality	<u>2349278</u>	Item is relevant. DB table 'TKA00' based check. Relevant criteria is '>0 ' and number found is 1 .
Financials - Controlling	S4TWL - Summarization Hierarchies in Controlling SI11: FIN_CO	Change of existing functionality	<u>2349282</u>	Item is relevant. DB table 'TKKR1' based check. Relevant criteria is '>0 ' and number found is 1 .
Financials - General	S4TWL - DATA MODEL CHANGES IN FIN SI1_FIN_General	Change of existing functionality	<u>2270333</u>	Item is relevant. DB table 'BKPF' based check. Relevant criteria is '>100 ' and number found is 101 .
Financials - General	S4TWL - REPLACED TRANSACTION CODES AND PROGRAMS IN FIN SI2_FIN_General	Functionality unavailable (equivalent exists)	<u>2270335</u>	Item is relevant. DB table 'BKPF' based check. Relevant criteria is '>0 ' and number found is 1 .
Financials - General Ledger	S4TWL - Currencies in Universal Journal SI6_FIN_GL	Change of existing functionality	<u>2344012</u>	Item is relevant. DB table 'BKPF' based check. Relevant criteria is '>1 ' and number found is 2 .
Financials - General Ledger	S4TWL - GENERAL LEDGER SI1_FIN_GL	Change of existing functionality	<u>2270339</u>	Item is relevant. DB table 'BKPF' based check. Relevant criteria is '>0 ' and number found is 1 .
Financials - International Trade	S4TWL - Determination of default values in Intrastat reporting SI3: FIN_SLL_ISR_DV	Change of existing functionality	<u>2468294</u>	Item is relevant. DB table 'T605Z' based check. Relevant criteria is '>0 ' and number found is 1 .
Financials - Miscellaneous	S4TWL - Credit Management SI1: FIN_MISC_CR	Functionality unavailable (equivalent exists)	<u>2270544</u>	Item is relevant. DB table 'T014' based check. Relevant criteria is '>0 ' and number found is 1 .
Financials - Miscellaneous	S4TWL - SAP Data Aging for SAP S/4HANA Finance SI4: FIN_MISC_ARCH	Change of existing functionality	<u>2170722</u>	Item is relevant. DB table 'BKPF' based check. Relevant criteria is '>1000000 ' and number found is 1000001 .

Application Area	Title	Category	SAP Note	Relevance
Financials - Treasury and Risk Management	S4TWL - Accrual/Deferral of Expenses and Revenues SI3: FIN_TRM	Functionality unavailable (equivalent exists)	<u>2270462</u>	Item is relevant. DB table 'TRDT_TRDBUSTRANS' based check. Relevant criteria is '>0 ' and number found is 1 .
Financials - Treasury and Risk Management	S4TWL - Correspondence Functionality SI1: FIN_TRM	Functionality unavailable (equivalent exists)	<u>2270450</u>	Item is relevant. DB table 'VTBKORES' based check. Relevant criteria is '>0 ' and number found is 1 .
Financials - Treasury and Risk Management	S4TWL - Drilldown Reporting in Treasury and Risk Management SI10: FIN_TRM	Functionality unavailable (equivalent exists)	<u>2270522</u>	Item is relevant. DB table 'VDARL' based check. Relevant criteria is '>0 ' and number found is 1 .
Financials - Treasury and Risk Management	S4TWL - Interest Rate and Yield Curve Functionality SI2: FIN_TRM	Functionality unavailable (equivalent exists)	<u>2270461</u>	Item relevant; business function FIN_TRM_YCF is inactive
Financials - Treasury and Risk Management	S4TWL - Quantity Ledger Always Active for Money Market Transactions SI14: FIN_TRM	Change of existing functionality	<u>2270529</u>	Item is relevant. DB table 'TRDT_TRDBUSTRANS' based check. Relevant criteria is '>0 ' and number found is 1 .
Globalization Financials	S4TWL - Annexing Solution for Israel SI2_GSFIN_LOCIL	Change of existing functionality	<u>2437547</u>	Item is relevant. DB table 'VTBFHA' based check. Relevant criteria is '>0 ' and number found is 1 .
Globalization Logistics	S4TWL - Globalization – Logistics SI1_GSLOG	Functionality unavailable (equivalent exists)	<u>2270312</u>	Item is relevant. DB table 'VARID' based check. Relevant criteria is '>0 ' and number found is 1 .
Human Resources	S4TWL - Java-Based ESS and MSS SI5: HR_JAVA_ESS_MSS	Functionality unavailable (equivalent exists)	<u>2383879</u>	Item is relevant. DB table 'HRP1001' based check. Relevant criteria is '>0 ' and number found is 1 .
Industry Banking	S4TWL - CML-specific functions with regard to collaterals and collateral objects SI2: Loans_CML_Banking	Functionality unavailable (equivalent exists)	<u>2369934</u>	Item is relevant. DB table 'VDLV' based check. Relevant criteria is '>0 ' and number found is 1 .
Logistics - ATP	S4TWL - New advanced ATP in SAP S/4HANA – Table VBBS SI1: Logistics_ATP	Functionality unavailable (equivalent exists)	<u>2267745</u>	Item is relevant. DB table 'TMVF' based check. Relevant criteria is '>0 ' and number found is 1 .
Logistics - Environment, Health & Safety (EHS)	S4TWL - Specification Workbench Adjustments SI14: Logistics_PSS	Change of existing functionality	<u>2439345</u>	Item is relevant. DB table 'TCGENV' based check. Relevant criteria is '>0 ' and number found is 1 .
Logistics - MM-IM	S4TWL - Material Ledger Obligatory for Material Valuation SI3: Logistics_MM-IM	Change of existing functionality	<u>2267834</u>	Item is relevant. DB table 'T001K' based check. Relevant criteria is '>0 ' and number found is 1 .

Application Area	Title	Category	SAP Note	Relevance
Logistics - PP	S4TWL - Planning File SI12: Logistics_PP	Change of existing functionality	<u>2268088</u>	Item is relevant. DB table 'T001W' based check. Relevant criteria is '>0 ' and number found is 1 .
Logistics - PP	S4TWL - Planning Horizon SI35: Logistics_PP	Functionality unavailable (no equivalent)	<u>2270241</u>	Item is relevant. DB table 'T001W' based check. Relevant criteria is '>0 ' and number found is 1 .
Master Data	S4TWL - Business Partner Approach SI2: MasterData_BP	Change of existing functionality	<u>2265093</u>	Item is relevant. DB table 'KNA1' based check. Relevant criteria is '>0 ' and number found is 1 .
Procurement	S4TWL - Output Management Adoption in Purchase Order SI9: PROC_MM_OUTPUT	Change of existing functionality	<u>2267444</u>	Item is relevant. DB table 'NAST' based check. Relevant criteria is '>0 ' and number found is 1 .
Sales & Distribution	S4TWL - Credit Management SI4: SD_CM	Functionality unavailable (equivalent exists)	<u>2270544</u>	Item is relevant. DB table 'T014' based check. Relevant criteria is '>0 ' and number found is 1 .
Sales & Distribution	S4TWL - Data Model Changes in SD Pricing SI2: SD_PRIC	Change of existing functionality	<u>2267308</u>	Item is relevant. DB table 'KONH' based check. Relevant criteria is '>0 ' and number found is 1 .

3.1.2 Simplification Items with Relevance to be Checked

The following simplification items cannot be checked automatically but may be immediately relevant for your SAP S/4HANA system conversion. Please check the relevance of items from used application areas by the provided Business Impact SAP Notes:

SIMPLIFICATION ITEMS WITH RELEVANCE TO BE CHECKED

Application Area	Title	Category	SAP Note	Relevance
Cross Topics	S4TWL - Changed Interfaces SI15: CT_Integration	Change of existing functionality	<u>2259818</u>	Relevance cannot be determined. Run manual check.
Cross Topics	S4TWL - FIORI APPLICATIONS FOR SUITE ON HANA ON-PREMISE SI10: CT_FIORI	Change of existing functionality	<u>2288828</u>	Relevance cannot be determined. Run manual check.
Globalization Financials	S4TWL - Globalization – Financials SI1_GSFIN	Functionality unavailable (equivalent exists)	<u>2270311</u>	Relevance cannot be determined. Run manual check.

Application Area	Title	Category	SAP Note	Relevance
Logistics - PLM	S4TWL - Enterprise Search in SAP Product Lifecycle Management (SAP PLM) SI1: Logistics_PLM	Change of existing functionality	2267836	Relevance cannot be determined. Run manual check.
Procurement	S4TWL - MDM Catalog SI7: PROC_MDM	Functionality unavailable (equivalent exists)	2271184	Relevance cannot be determined. Run manual check.
Sales & Distribution	S4TWL - Webshops by Internet Sales or Web Channel Experience Management SI11: SD_IS	Functionality unavailable (equivalent exists)	2271161	Relevance cannot be determined. Run manual check.

3.1.3 Relevant Non-Strategic Simplification Items

The following table lists non-strategic simplification items that have been checked and are relevant for your SAP S/4HANA system conversion:

RELEVANT NON-STRATEGIC SIMPLIFICATION ITEMS

Application Area	Title	Category	SAP Note	Relevance
Cross Topics	S4TWL - LEGACY SYSTEM MIGRATION WORKBENCH SI9: CT_LSMW	Non-strategic-function (equivalent exists)	2287723	Item is relevant. DB table 'CVERS' based check. Relevant criteria is '>0' and number found is 1 .
Cross Topics	S4TWL - OUTPUT MANAGEMENT SI4: CT_OM	Non-strategic-function (equivalent exists)	2470711	Item is relevant. DB table 'CVERS' based check. Relevant criteria is '>0' and number found is 1 .
Human Resources	S4TWL - General HCM Approach within SAP S/4HANA SI1: HR_OP	Non-strategic-function (equivalent exists)	2273108	Item is relevant. DB table 'HRP1001' based check. Relevant criteria is '>0' and number found is 1 .
Logistics - PP	S4TWL - MRP in HANA SI11: Logistics_PP	Non-strategic-function (equivalent exists)	2268085	Item is relevant. DB table 'T001W' based check. Relevant criteria is '>0' and number found is 1 .
Master Data	S4TWL - Batch Input for Customer Master/Supplier Master SI25: MasterData_BP	Non-strategic-function (equivalent exists)	2492904	Item is relevant. DB table 'KNA1' based check. Relevant criteria is '>0' and number found is 1 .

3.1.4 Non-Strategic Simplification Items with Relevance to be Checked

The following non-strategic simplification items cannot be checked automatically. Please check the relevance of items from used application areas by the provided Business Impact SAP Notes:

NON-STRATEGIC SIMPLIFICATION ITEMS WITH RELEVANCE TO BE CHECKED

Application Area	Title	Category	SAP Note	Relevance
Cross Topics	S4TWL - Custom Fields SI13: CT_Custom-Fields	Non-strategic-function (no equivalent yet)	<u>2320132</u>	Relevance cannot be determined. Run manual check.
Cross Topics	S4TWL - Side Panel functionality in SAP S/4HANA (on-premise) SI14: CT_SIDE_PANELS	Non-strategic-function (no equivalent yet)	<u>2340424</u>	Relevance cannot be determined. Run manual check.

LINK TO THE LIST OF RELEVANT SIMPLIFICATION ITEMS

[https://launchpad.support.sap.com/#readiness/TransactionSet\('8987770000010142'\)/ObjectPage/section/simplification/Type=S4_HANA](https://launchpad.support.sap.com/#readiness/TransactionSet('8987770000010142')/ObjectPage/section/simplification/Type=S4_HANA)

4 Required Custom Code Adjustments for a System Conversion to SAP S/4HANA

Custom Code checks have been performed in system RP1.

4.1 Custom Code

In general, the following changes and respective custom code adjustments are required in a system conversion project to SAP S/4HANA:

- Adjusting the custom code to the simplified data model and simplification list in SAP S/4HANA
- Re-applying modification using SPDD, SPAU – due to software update
- Mandatory changes for SAP HANA – if system is not on SAP HANA already
- Making the custom code Unicode compliant – if the system is not yet on Unicode
- Optimizing performance of custom code

The custom code part of SAP Readiness Check for SAP S/4HANA focuses on identifying areas of mandatory changes, which are required due to the simplified application architecture of SAP S/4HANA (first point in the list above).

The analysis does not contain a list of adaptations necessary to support the other required changes mentioned above.

The following customer namespaces are considered by the custom code checks in SAP Readiness Check for SAP S/4HANA:

ANALYZED CUSTOMER NAMESPACES

Customer Namespaces
/0CUST/

* /0CUST/ represents Y* and Z* namespaces

CUSTOM CODE OVERVIEW

Item	Number of Objects
Total SAP Notes	220
Relevant SAP Notes	14
Non-Relevant SAP Notes	206
Total Custom Code Objects	2581
Total Modifications	162

SIMPLIFICATION ITEMS AFFECTING CUSTOM CODE

SAP Note	Custom Code Topic	Estimated Impact
<u>1976487</u>	Information about adjusting customer-specific programs to the simplified data model in SAP Simple Finance	Medium
<u>2224144</u>	Deprecation / Restricted Availability of IS-Beverage functionalities in S/4HANA	Low
<u>2224144</u>	Deprecation / Restricted Availability of IS-Beverage functionalities in S/4HANA	Low
<u>2228244</u>	SAP S/4HANA Simplification: DIMP Automotive - Dealer portal (DIWI and BSP-based)	Low
<u>2270335</u>	S4TWL - Replaced Transaction Codes and Programs in FIN	Low
<u>2270400</u>	S4TWL - Cash Management - General	Low
<u>2296016</u>	SAP S/4 HANA custom code adaption - removal of orphaned objects	Low
<u>2320132</u>	S4TWL - Custom Fields	Medium
<u>2371602</u>	S4TWL - Retail Order Optimizing: Load Build, Investment Buy	Low
<u>2383997</u>	SAP S/4HANA Simplification : Distributor Reseller Management	Low
<u>2389136</u>	sFIN Data Migration for G/L Accounts and Cost Elements & ALE - Technical Information	Low

SAP Note	Custom Code Topic	Estimated Impact
2431747	General Ledger: Incompatible changes in S/4HANA compared to classic ERP releases	Medium
2438131	Material Number Field Length Extension: Code Adaptions for usages of released RFCs and BAPIs	Low
2445654	S4TWL - Actual labor and costing	Low

5 Required Adjustments for BW Extractors

This section lists all SAP BW Extractors in your ERP system and tells you whether they can still be used in SAP S/4HANA. For example, it shows if an extractor is not available anymore, was replaced by an alternative, or only works with restrictions due to simplifications in the S/4HANA application. Simplification items are listed and can be accessed for more detailed information about changes in SAP S/4HANA that are relevant for a specific extractor.

- DS Working
 - No Restrictions: Data Source is available with SAP S/4HANA and works without any restrictions compared to SAP ERP.
 - Restrictions: Data Source is available with SAP S/4HANA but works with noteworthy restrictions. For example, not all fields are available.
 - Regeneration of Extractor: Because of the nature of the extractors, being generated in the system, we cannot white list those in general. Experience so far shows that they should be working without restrictions.
- DS Not Working
 - Alternative Exists: Data Source is not working with SAP S/4HANA but an alternative exists, such as a new extractor or CDS view.
 - No Alternative Exists: Data Source is not working with SAP S/4HANA and there is no alternative.
 - Alternative Planned: Data Source is not working with SAP S/4HANA but there will be an equivalent available on roadmap for future release.
- DS Obsolete: Data Source is obsolete - legacy extractors
- DS Not Relevant: Data Source is available in ROOSOURCE, however, not to be used for extraction by BW.

The analysis covers all BI content extractors available up to ERP 6.0 EHP8.

For further information please refer to SAP Note [2500202](#).

TOP 20 BUSINESS WAREHOUSE EXTRACTORS

No data available

6 Additional Information for a System Conversion to SAP S/4HANA

6.1 Recommended SAP Fiori Applications for SAP S/4HANA

SAP S/4HANA offers SAP Fiori applications as an alternative to SAP GUI transactions and reports. New applications in SAP S/4HANA are always built with the SAP Fiori user interface.

The following list includes the most relevant SAP Fiori applications, based on the transaction usage history in the evaluated system.

10 MOST RELEVANT SAP FIORI APPS

Name	Role	Description	Relevance
<u>Carry Forward Balances</u>	General Ledger Accountant	With this app, you can carry forward balances from one fiscal year to the next for a specific ledger in General Ledger Accounting. You can then initiate opening balances, update balance sheet data, and view the company's operating results and overall financial situation. You can see the number of posted documents after you have carry forward a specific line item. The system automatically corrects the balance carryforward in case of subsequent postings to the previous year, but allows you to run the application as often as necessary. This app is available for the role General Ledger Accountant.	Relevance based on usage of transaction FAGLVTR (G/L: Balance Carried Forward)
<u>Clear G/L Accounts</u>	General Ledger Accountant	You can use this app to manually clear G/L account open items that did not clear automatically.	Relevance based on usage of transaction F-03 (Clear G/L Account)
<u>Clear Incoming Payments</u>	Accounts Receivable Accountant	You use this app to clear a receivable payment manually, such as an open incoming payment for a customer invoice. The system usually clears these payments automatically. However, sometimes customer information is missing and the system cannot find appropriate open items that match the payment. In this case, you have to clarify this payment, match it to the correct open invoices and credit memos as aligned with your customer, and clear the payment manually.	Relevance based on usage of transaction F-32 (Clear Customer)

Name	Role	Description	Relevance
<u>Controlling Document (S/4HANA)</u>	Controller	This object page displays contextual information about the Controlling Document business object. You can navigate to its related business objects and to related transactional apps, and you can access related transactions in ABAP back-end systems. This app is available for the role Controller.	Relevance based on usage of transaction FB03 (Display Document)
<u>Customer Master Factsheets</u>	Master Data Specialist - Business Partner Data	With this app, you can display an overview of the customer data.	Relevance based on usage of transaction XD03 (Display Customer (Centrally))
<u>Display Customer Summary - China</u>	Accounts Receivable Accountant for China	With this app, you can display a summary of customer account balances: balances at the start and end of a specified period. The summary also shows the credit and debit of the period and those of the current fiscal year. By viewing the summary, you can get a big picture of the balances of customer accounts and make sure that payment from customers are collected and confirmed duly. The app is available for the role Accounts Receivable Accountant.	Relevance based on usage of transaction FBL5N (Customer Line Items)
<u>Display G/L Account Balances</u>	General Ledger Accountant	You can use this app to check and compare the balances, and the credit and debit amounts of a ledger in a company code for each period of a fiscal year. You can restrict the data to a single general ledger account, or use other selection criteria (for example profit center). You can see the balances for the periods in the selected year, but you can click through to other periods by choosing Previous Periods. Note You can scroll between the periods only for the selected year and the previous year. In a further view, you can compare the balances relating to several fiscal years with each other. This app is available for the business role G/L accountant.	Relevance based on usage of transaction F.08 (G/L: Account Balances)
<u>Display Treasury Position Flows</u>	Treasury Risk Manager	With this app you can track the position flows for financial transactions and positions. This app provides a list of flows of selected positions in the treasury sub ledger, as well as detailed information on the flows and navigation possibilities. Note This app does not consider sub-positions, so flows from Hedge Accounting for Positions and value adjustment flows regarding P-GAAP are not selected.	Relevance based on usage of transaction TPM13 (Treasury Ledger: Flow List)
<u>Display Treasury Position Values</u>	Treasury Risk Manager	With this app you can display a list of positions in the treasury subledger and their position component values on any selected key date. Examples of position component values include book value, purchase value, write-up/write-down in valuation, and position currency.	Relevance based on usage of transaction TPM12 (Treasury Ledger: Position List)

BUSINESS PROCESS ANALYTICS KPI

No data available

LINK TO THE LIST OF BUSINESS PROCESS ANALYTICS KPI

[https://launchpad.support.sap.com/#readiness/TransactionSet\('8987770000010142'\)/ObjectPage/section/bpa/Type=S4_HANA](https://launchpad.support.sap.com/#readiness/TransactionSet('8987770000010142')/ObjectPage/section/bpa/Type=S4_HANA)

6.3 SAP Custom Development Projects

With the conversion to SAP S/4HANA, SAP Custom Development projects also need to undergo an SAP S/4HANA compatibility check and a maintenance contract validity check. See below for an overview of SAP Custom Development projects that have been created for your customer number.

PLEASE NOTE: You can view all SAP Custom Development projects that have been delivered to you based on the customer number under which the SAP Readiness Check was created. If you have multiple productive SAP ERP installations under the same customer number, then all of your SAP Custom Development projects will be shown for all systems, even though some might be installed only in one of your productive SAP ERP installations.

SAP CUSTOM DEVELOPMENT PROJECTS

No SAP custom development projects found.

Further Information

See the following links for relevant SAP S/4HANA resources:

Topic	Description
SAP Value Assurance Services	Quick-start your digital transformation with the SAP Value Assurance Service Packages for SAP S/4HANA.
Transition to SAP S/4HANA	The project roadmap gives you a general overview of a SAP S/4HANA project by phase, workstream, or service. The results are presented as activities, deliverables, and tasks and are enriched with corresponding whitepapers and SAP Notes.
SAP S/4HANA Trial	Direct link to the SAP S/4HANA trial where you can explore SAP S/4HANA, our next generation ERP suite, with a 30-day trial utilizing the latest SAP S/4HANA release.
SAP S/4HANA Community	Ask questions, share experiences, and build your knowledge of SAP's next generation business suite.

Table C – BW Readiness Check

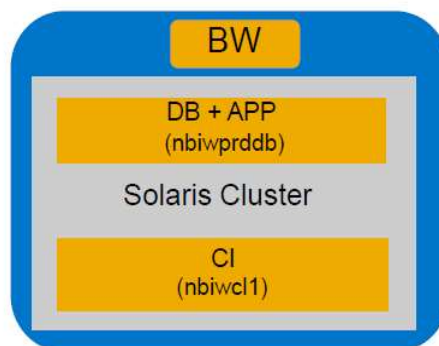
Life Insurance of India's BP1 system is currently on BW 7.0 SP 21 on Oracle 11.2 database. LIC is planning to convert their existing BW on Oracle system to BW/4HANA

Current Landscape	System Name
BD1	Development System
BP1	Production System

After Upgrade	System Name
BD1	Development System
BQ1	Quality System
BP1	Production System

Current Hardware Details

Primary Site - Parle



M400 Server
RAM - 32 GB
CPU – 16
OS - SunOS nbiwprddb 10 Generic_150400-27

M400 Server
RAM - 32 GB
CPU – 16
OS - SunOS nbiwcl1 -1 5.10 Generic_150400-18

DR Site - Bangalore with similar setup

BW4HANA Sizing (BP1) – As-is

Node Type	Memory requirement (Space + dynamic) in GB		Node Size	Memory Allocation
Master	174		0.5 TB	~ 492
Slave	NA		1 TB	~990
			1.5 TB	~1485

MINIMUM MEMORY SIZING RESULTS - CURRENT

=====

	minimum	recomm.
Phys. memory per node:	512 GB	512 GB

Master / Worker Nodes:		
Memory Requirement (Minimum Total):	174 GB	174 GB
Disk Space Requirement - data (Minimum Total):	197 GB	197 GB
Disk Space Requirement - logs (Minimum Total):	87 GB	87 GB
Number of Nodes incl. master (Minimum Total):	1	1

Objects – Compatible & Not Compatible

BW Object Type	Status	Number of Objects	Conversion Mode	Remarks
BW Query	Compatible	1000	NA	Z Reports
BEx Workbook	Not Compatible	130	Manual Re-Design	Check Usage
InfoCube	Not Compatible	27	Tool Available	
Virtual Provider	Not Compatible	1	Manual Re-Design	Check Usage
Analysis Process	Not Compatible	0	Manual Re-Design	Check Usage
MultiProvider	Not Compatible	29	Tool Available	
InfoSet	Not Compatible	33	Tool Available	SAP Note 2479683
DataStore Object (classic)	Not Compatible	70	Tool Available	SAP Note 2451013
DataSource	Not Compatible	241	Tool Available	SAP Note 2470315
DB Connect Source	Not Compatible	0	Manual Re-Design	SDI
SAP Source System	Not Compatible	1	Tool Available	SAP Note 2473145
Data Source 3.x	Not Compatible	8	Tool Available	Check Usage
Open Hub Destination	Not Compatible	6	Tool Available	SAP Note 2469516

Numbers mentioned in Column 3 represent Total number of objects.

Add-Ons

Component	Release	SP Level	Description	Comments
BI_CONT	703	14	Business Intelligence Content	BW/4HANA->(BW4CONTB and BW4CONT
SAP_BASIS	700	19	SAP Basis Component	Supported
SAP_ABA	700	19	Cross-Application Component	Supported
PI_BASIS	2006_1_70 0	9	Basis Plug-In	Converted to DW4CORE
ST-PI	2008_1_70 0	22	SAP Solution Tools Plug-In	Supported
SAP_BW	700	21	SAP NetWeaver BI 7.0	Converted to DW4CORE
ST-A/PI	01T_700	3	Servicetools for other App./Netweaver 04	Supported

The Executive Director(INVM),
LIC of India, Central Office, East Wing, 6th Floor,
YOGAKSHEMA,
Mumbai - 400 021

Date:

Dear Sir/Madam,

Sub: 'RFP For S4/HANA On-Premise Solution (migration, Development and managing of Investment System) for Life Insurance Corporation of India' Ref: **LIC/CO/INVM/IIRMS/RFP/2021-2022/1** dated 08-Apr-2021

This has reference to the LIC's Tender, Reference mentioned above. We___(name and address of the bidder)___ hereby confirm that we have gone through and understood this RFP including its Scope of Work Document (Annexure-N) along with its annexure/ appendices / clarifications/ addenda/ corrigenda. We agree to deliver services as required in this document.

Dated at___this___day of_2021
Thanking you,

Authorized Signatory of the bidder Name: _____
Designation: Date: _____
Place:

Seal of the company