Exam Guide
SAP Certified Professional – SAP Enterprise Architect

Enterprise architects play a crucial role in orchestrating the development of a holistic enterprise architecture model that supports established enterprise goals. To help companies to future-proof their technology environment, SAP is introducing a role-based certification program for enterprise architects aimed at aligning technology with an organization's business strategy, giving customers confidence in the skills of their professionals to realize the benefits of their SAP investments fully.

As organizations shift more of their workload to the cloud, we see that the role of the enterprise architect is becoming increasingly vital and highly in demand to drive digital transformation.

The reason for this is that enterprise architects play a crucial role in orchestrating the development of a holistic enterprise architecture model that supports established enterprise goals and bridge the gap between business and technology needs.

Typically, these roles are filled with well-seasoned and experienced professionals with a comprehensive understanding of solutions and technology, end-to-end business processes, and their value across various solutions, reference architectures, and strategic aspects of the enterprise architecture.

That is why SAP's first role-based certification program targets SAP professionals on an advanced proficiency level. To get certified, learners must demonstrate expertise and profound architecture engagement experience. The exam questions will mainly be based on scenarios and a case study because the aim is not to check theoretical knowledge but applied knowledge.

The benefit for the individual is obvious: A certification for an in-demand role like the one of the enterprise architect can help set you apart on the job market, foster career growth, and success, and increase job security. At the same time, the certification allows organizations to maximize their SAP investment. They can have confidence in the skills of their employees, both internally and from an advisory/partner company point of view, knowing that they are equipped with the knowledge that brings value to their company and helps to drive significant business value on a large scale.

Purpose of this document

This exam guide aims to help you understand what to expect in the certification exam from a topic coverage point of view and will help you focus your studies and prepare for the exam.

Exam guide change log

Date	Applied Changes
2023-05-15	Initial version created
2023-06-13	- Skill areas consolidated (technology architecture added to application and data architecture cluster) - Skill area weightings updated - Recommended qualification criteria details added - List of measured skills updated - Sequence of recommended readings and resources updated - Case study added
2024-03-05	- Updated skill area weightings - Link corrections for recommended readings and resources
2024-10-25	- LeanIX solution knowledge added to recommended qualification criteria - Update of recommended readings and resources

Table 1 – Exam guide change log

Target audience

The exam is intended for IT professionals who perform an enterprise architect role. It validates the candidates advanced knowledge to orchestrate the development of a holistic enterprise architecture model that is closely aligned with a company's business strategy and operating model.

Enterprise architects are vital in establishing an organization's IT infrastructure and maintaining and updating IT hardware, software, and services to support established enterprise goals.

Some of the recommended qualification criteria:

➢ Current business architecture and/or data and application architecture and/or technology architecture know-how incl. comprehensive knowledge about the SAP innovation strategy and latest SAP solution portfolio

➢ Valid and current SAP certification(s) for SAP Cloud ERP and SAP Cloud platform technology

➢ Profound Enterprise Architecture engagement experience, 5+ years of experience recommended

➢ Enterprise architecture methodology and framework know-how, preferably TOGAF Certified

➢ Basic knowledge of SAP LeanIX solutions

Skill areas and weight

Skill area	Exam weight
SAP Enterprise Architecture Framework and Toolset	11 – 20%
Architecture Vision and Roadmap	21 – 30%
Business Architecture	21 – 30%
Data, Application, and Technology Architecture	21 – 30%

Table 2 – Skill areas and weight

Skills measured

SAP Enterprise Architecture Framework and Toolset

- Analyze, assess, and understand a company's business strategies
- Apply Reference Architecture Content from SAP
- Interpret IT requirements
- Map business requirements and (SAP) solution space
- Describe and use SAP Enterprise Architecture Methodology artifacts
- Design and apply the Enterprise Architecture
- Recommend and use SAP Enterprise Architecture tools

Architecture Vision and Roadmap

- Develop the architecture vision and roadmap for a company
- Capture existing and future business models and capabilities
- Define a target business/solution architecture roadmap

Business Architecture

- Recommend a business capability mapping
- Model end-to-end processes

Data, Application, and Technology Architecture

- Describe/explain artifact content, usage, and stakeholders
- Use artifacts
- Apply best practices of Reference Architecture Content from SAP
- Apply the SAP Integration Advisory Methodology
- Evaluate the impact of regulations
- Apply SAP Clean Core principles and strategy
- Evaluate the impact of using SAP S/4HANA Cloud, public edition and private edition

Recommended readings and resources

The following list of resources will help prepare for the exam. However, please note that this list is not complete nor sufficient but rather intended to complement the qualification criteria listed above.
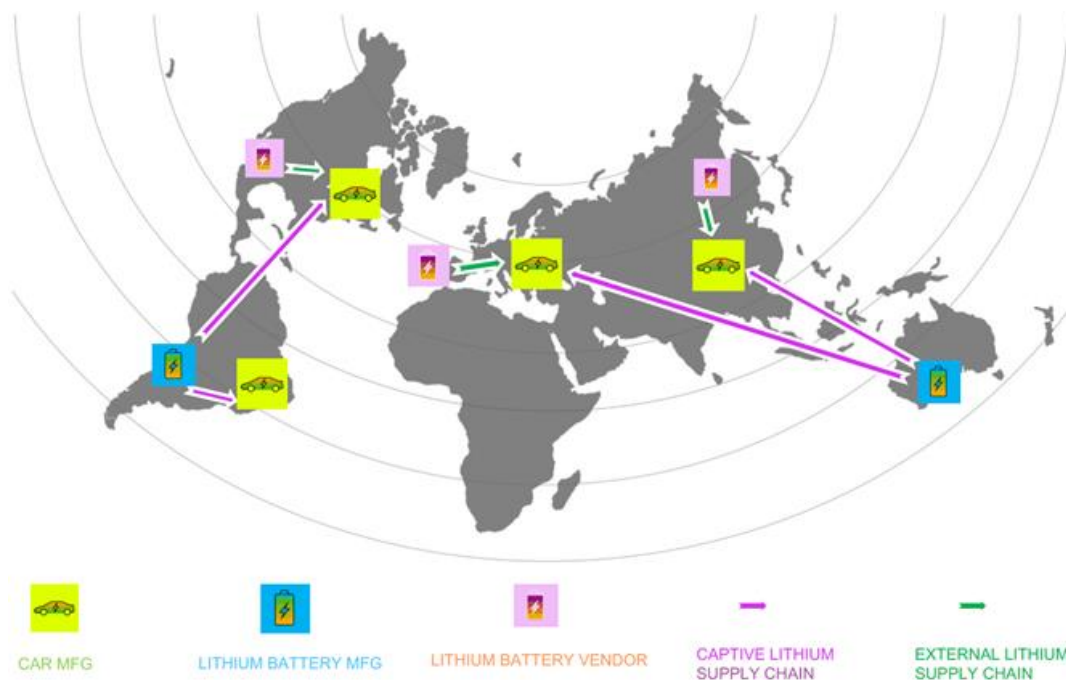
- SAP Enterprise Architecture Training (IEA10), theoretical knowledge also consumable as self-pace learning journey here: Applying the SAP Enterprise Architecture Framework
- SAP Enterprise Architecture Framework Presentation at the TOGAF Standard 10th Edition Launch Event
- SAP Enterprise Architecture Framework Overview
- Exploring the SAP Enterprise Architecture Framework Foundation
- SAP Reference Architecture Content Overview
- Access to SAP Reference Architecture content using SAP Signavio Process Explorer
- Access to SAP Reference Solution Architecture content using SAP Business Accelerator Hub
- Learning to use the LeanIX tool for successful Enterprise Architecture
- SAP Integration Solution Advisory Methodology
- Get your organization in shape: Keep a Clean Core with SAP BTP
- Clean Core - Preparing for and maximizing the value of the Cloud
- Managing Clean Core for SAP S/4HANA Cloud
- 5 golden rules for implementing SAP S/4HANA Cloud
- Clean Core related enhancements in the Solution Standardization Board for RISE with SAP
- Guidance to adopt SAP Extension Options for SAP S/4HANA
- Applying the RISE with SAP Methodology
- SAP Fiori Design Guidelines
- SAP's community page for collaboration of professionals working in Enterprise Architecture

Case Study – Wanderlust

Introduction

Wanderlust GmbH, headquartered in Germany but with manufacturing facilities and sales globally, is a leading global manufacturer of conventional fuel driven cars. They are renowned for their best-in-class engineering, but not so much for aftermarket customer service. In recent years, Wanderlust has had limited success expanding into the market of electric vehicles.

Following is Wanderlust's geographical manufacturing and supply spread:

| CAR MFG | LITHIUM BATTERY MFG | LITHIUM BATTERY VENDOR | CAPTIVE LITHIUM SUPPLY CHAIN | EXTERNAL LITHIUM SUPPLY CHAIN |

Wanderlust offers one compact electric Sedan (model ELAN) and one compact electric SUV (model ELUV), each with three variants – basic (LX), mid-range (VX) and high-end (ZX). Customers can also choose from a range of five metallic colors, two drive trains and two battery ranges. Overall, 50 different combinations are offered for all segments and variants put together.

Extracts from CEO Interviews – Business Environment

Constraints/Issues
o *Stiff water consumption regulations and enormous penalties for violation – Lithium extraction is a heavy water intensive process and mine locations are in very arid areas like the Australian outback and Atacama Desert*
o *Significant dependence on external suppliers of Lithium batteries due to limited number of manufacturing units, long lead times and high carbon footprint in all car manufacturing facilities except Brazil.*
o *Long delays in spare battery availability, leading to an avalanche of unresolved battery related customer complaints for vehicles under warranty*
o *Limited charging infrastructure, long charging cycles (as compared to refilling fuel) and slow resolution of battery related complaints.*
o *Dwindling in store footfall due to pandemic (for feature-based vehicle selection prior to test drive)*

New business initiatives/Revenue models
o   *"Smart Battery", which will monitor battery health and will alert the user about any alarming parameter*
o   *"Insta-Charge", which will allow instant battery swap in dedicated charge stations for a fee*
o   *"Perpetual Warranty" which will provide warranty on each battery swap service and not on the battery*

Strategic Priorities - Business
o   *Increase supply reliability of Lithium batteries*
o   *Minimize water loss during Lithium extraction*
o   *Minimize carbon footprint across enterprise*
o   *Reduce under warranty battery complaints*
o   *Increase booking despite reduced in store footfall*
o   *Ensure business ownership of the transformation*
o   *Improve business process visibility*
o   *Ensure faster response to business disruptions*
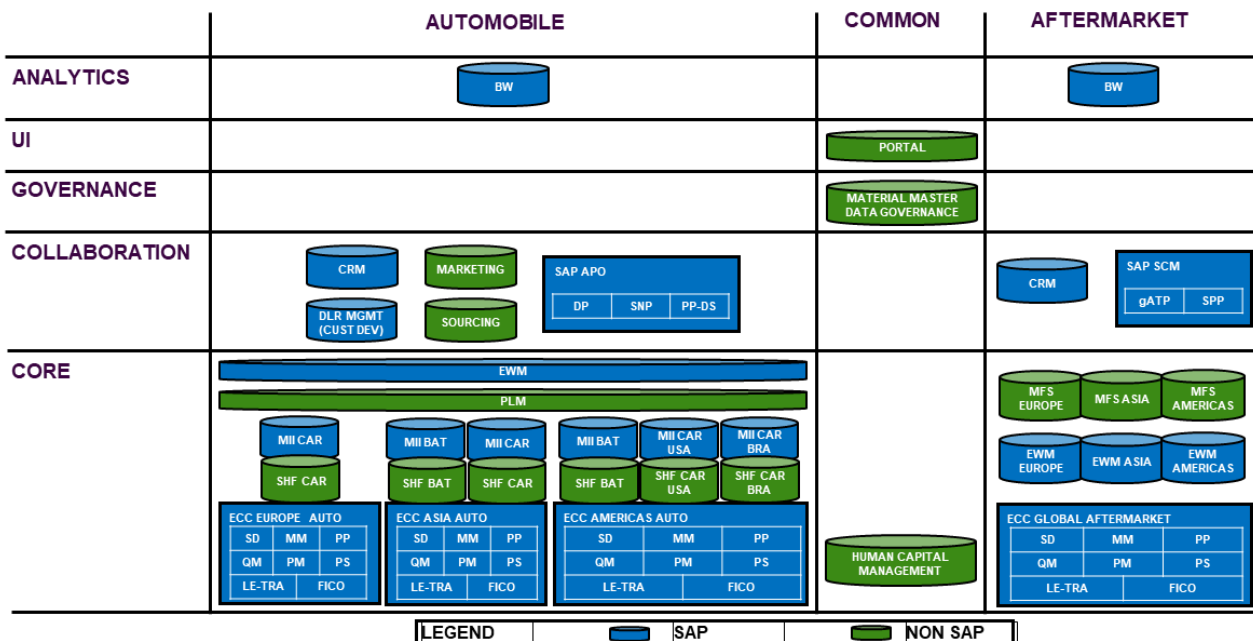

Extracts from CIO Interviews – IT Environment

Strategic Priorities - IT
o   *Ease of usage*
o   *Ease of Maintenance*
o   *Total Cost of Ownership Optimization*
o   *Time to Value Acceleration*

Transformation Status
o   *Only at a conceptual stage – no planning done yet*
o   *Nascent architecture practice*
o   *Unclear on supported processes, required capabilities, applications, and transition path*
o   *Yet to identify, prioritize and sequence initiatives*

As-Is Architecture

	AUTOMOBILE	COMMON	AFTERMARKET
ANALYTICS	BW		BW
UI		PORTAL	
GOVERNANCE		MATERIAL MASTER DATA GOVERNANCE	
COLLABORATION	CRM MARKETING SAP APO [DP | SNP | PP-DS] DLR MGMT (CUST DEV) SOURCING		CRM SAP SCM [gATP | SPP]
CORE	EWM PLM MII CAR / SHF CAR MII BAT / SHF BAT MII CAR / SHF CAR MII BAT / SHF BAT MII CAR USA / SHF CAR USA MII CAR BRA / SHF CAR BRA ECC EUROPE AUTO [SD | MM | PP | QM | PM | PS | LE-TRA | FICO] ECC ASIA AUTO [SD | MM | PP | QM | PM | PS | LE-TRA | FICO] ECC AMERICAS AUTO [SD | MM | PP | QM | PM | PS | LE-TRA | FICO]	HUMAN CAPITAL MANAGEMENT	MFS EUROPE MFS ASIA MFS AMERICAS EWM EUROPE EWM ASIA EWM AMERICAS ECC GLOBAL AFTERMARKET [SD | MM | PP | QM | PM | PS | LE-TRA | FICO]

LEGEND: SAP — NON SAP

- o *Wanderlust has a separate organization and setup for their Automobile and Aftermarket businesses*
- o *Wanderlust is reluctant to consider cloud for Core applications due to data privacy concerns, but are open for Collaboration applications*

- o *Automobile business started off in Europe and grew through acquisitions in Asia and Americas*
- o *Automobile business runs on three continental SAP ECC instances with inherited, disparate processes, which need to move to S/4HANA*
- o *Automobile business is also looking to harmonize their processes across the continents, adopt a seamless, transparent global supply chain for batteries and consolidate the continental instances into a global single instance, data regulations permitting*
- o *Automotive business uses a highly complex custom developed dealer management solution on ECC, which needs to be replaced*
- o *Automotive business uses SAP APO, which is nearing end of lifecycle and needs to be replaced by IBP (DP & SNP) & S/4HANA (PP-DS)*
- o *Automotive business uses several bespoke non-SAP applications, which are considered irreplaceable, except for the Marketing and Sourcing applications, which are expensive to maintain, seldom used and hence need to be replaced*

- o *Aftermarket business processes are largely uniform and handled through a single ECC instance which also should move to S/4HANA*
- o *Aftermarket business uses SAP SCM which is nearing end of lifecycle and needs to be replaced by S/4HANA AATP (gATP) and eSPP (SPP)*

Extracts from Interview with Enterprise Architect

Enterprise Architecture Dimensions & Maturity
- o *Wanderlust's Key EA Dimensions, their overall purpose and current maturity level*

Sl No	EA Dimension	Purpose	Current Status & Maturity Level
1	Business-IT Alignment	Traceability between Business Drivers & IT Services	Only strategic objectives defined 🔴
2	Stakeholder Involvement	Stakeholder Identification, Awareness & Engagement in EA	Only a few stakeholders identified 🔴
3	Action & Impact	Usage of EA in Sourcing & Investment Decisions & Business Strategy	EA involved in RFP decisions 🟡
4	Architecture Development	Development Methodology with Standards & Reference Models	Nothing developed, methodology in place 🔴
5	Architecture Process	EA Creation, Maintenance, & Approval Processes	Ad hoc 🔴
6	Organization & Governance	Governance Organization Structure Approved by Senior Management	Governing body formed, team not yet 🟡
7	Communication	Documentation & Communication of EA Practice Decisions	Artifacts available but not known 🟡
8	People Enablement	Roles, Skills, and RACI Definition of People Involved in EA	Role and skill set defined 🟡

Top three priorities given the current maturity level, are as follows

- o *Stakeholder Involvement is the topmost priority, to create a Stakeholder Map that'll identify all key EA stakeholders within Wanderlust*
- o *Business-IT Alignment is also a top priority, to anchor every IT initiative to a Business Strategy Map, consisting of clearly defined strategic business objectives, tangible goals and measurable value drivers*
- o *Architecture Development is the next priority, beginning with development of business architectures, followed by application architectures and finally opportunities & solutions planning*

Enterprise Architecture Practice Structure (Current)
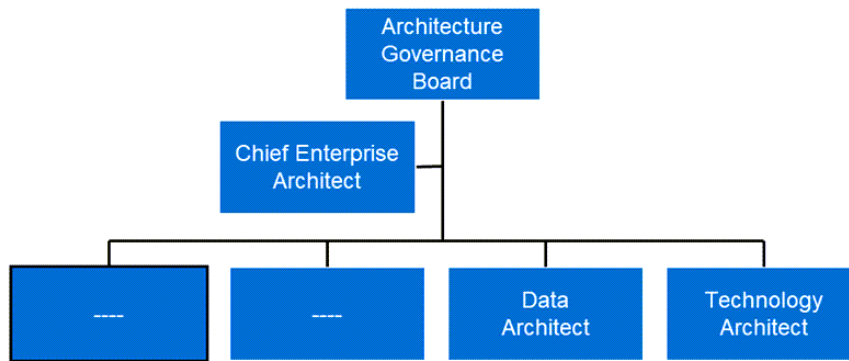
Enterprise Architecture Principles

o   *Wanderlust's Enterprise Architecture Principles are a collection of crisp and precise one liners pertaining to business, application, information, integration, technology and security aspects of transformation*

o   *Some of the EA Principles in the repository are*
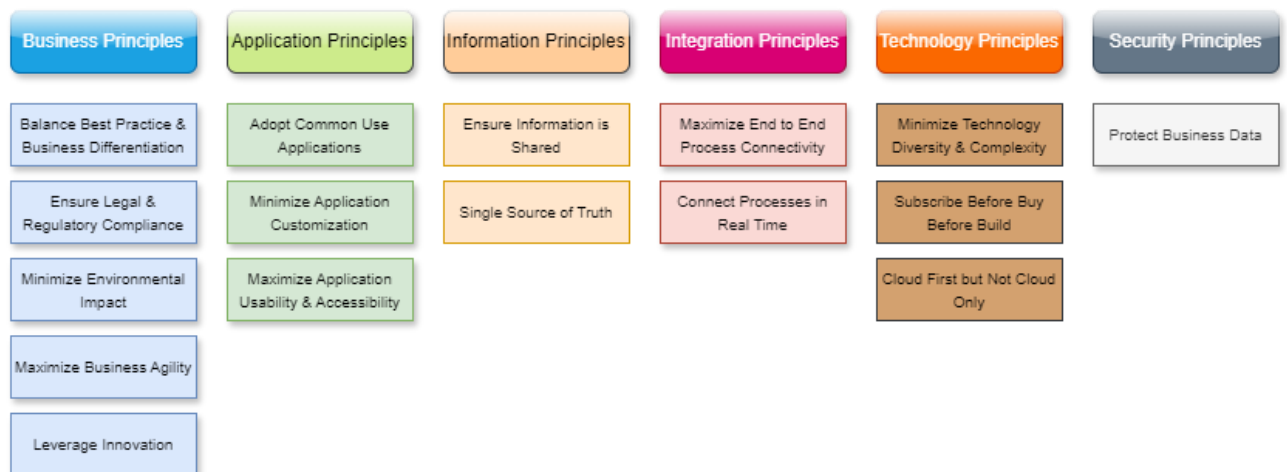
o   *These EA Principles serve as high-level directional statements and long-term guard rails to the above six aspects of transformation programs & projects*

o   *They should ideally correlate (many to many) with the Strategic Objectives, defined in the Business-IT alignment EA Dimension – this is yet to be done though*

Disclaimer

The information in this document is confidential and proprietary to SAP and may not be disclosed without the permission of SAP.

Except for your obligation to protect confidential information, this document is not subject to your license agreement or any other service or subscription agreement with SAP. SAP has no obligation to pursue any course of business outlined in this document or any related document, or to develop or release any functionality mentioned therein.

This document, or any related document and SAP's strategy and possible future developments, products and or platforms directions and functionality are all subject to change and may be changed by SAP at any time for any reason without notice. The information in this document is not a commitment, promise or legal obligation to deliver any material, code or functionality. This document is provided without a warranty of any kind, either express or implied, including but not limited to, the implied warranties of merchantability, fitness for a particular purpose, or non-infringement. This document is for informational purposes and may not be incorporated into a contract. SAP assumes no responsibility for errors or omissions in this document, except if such damages were caused by SAP's intentional or gross negligence.

All forward-looking statements are subject to various risks and uncertainties that could cause actual results to differ materially from expectations. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of their dates, and they should not be relied upon in making purchasing decisions.

www.sap.com