

Solution Architecture Review

Review Template



Project Description

In Scope

Out of Scope

Business Architecture: Capability Map

Application Change

Business Capability	Application/System	Buy/Build/Reuse	APM Roadmap

AS-IS Context Diagram

TO-BE Context Diagram

Use Case View

<<This includes several use case views of the business requirements. Business requirements are usually completed by elicitation session between business users, business analysts and some other IT stakeholders>>

Non-Functional Requirements

Availability		
Requirement	Description	Answer
Hours of Operations	Describe hours of operation for the Solution. E.g. 24/7 or weekdays only between 8am and 5pm	
Availability (%)	Percentage of time that the application, process or capability needs to be available (i.e. 99.99%)	
SLA	Service Level Agreement as measured by time (i.e. 30 minutes for completion of the process or batch). If external interfaces are part of the solution, provide the SLA for these individual interfaces (i.e. file delivered by 2:00 AM)	
Maintenance/Upgrade Time	When do you plan for upgrades on the system? Define a maintenance window (E.g. Sundays from 1:00 AM – 4:00 AM)	
Unplanned Downtime Impact	Describe the impact of any unplanned downtime on the business or process	
Batch Processing Times	Define any batch process time windows (E.g. batches can only run between 2 AM and 4 AM)	

Non-Functional Requirements

Performance		
Requirement	Description	Answer
Response Time	Measurement in time of the response of the system, to include the average expected response time and the maximum acceptable response time. This can either be the screen response time (E.g. Less than 2 seconds)	
Data Latency	Define the acceptable data latency of data required for the Solution. E.g. customer address can be a maximum of 1 day.	

Non-Functional Requirements

Volumes		
Requirement	Description	Answer
Average Volume Estimates	Measure of the average volume of the solution over a period of time such as daily or monthly (E.g. 1000 transactions per day)	
Peak Estimates	Define the peak time period for high volumes of data. (E.g. end of the month) Also define a peak time time period during a day or week (E.g. Between 5pm and 8pm or weekends)	
File Sizes & Interface Type	Size in gigabytes, megabytes or kilobytes of any files that is required for processing E.g. interface size on a web services, image files or any other document files, etc.)	
Backups / Archiving	Describe the percentage of data that needs to be either purged or archived, and define the percentage over time. Also indicate when and how backups should be taken.	
History	Describe how long you need to keep data history. E.g. the solution needs 2 years of history for online transactional data	
Database Growth Projections	Indication of the percentage increase or decrease of the size of the database over time. E.g. 5% increase over the first 12 months	

Non-Functional Requirements

User Interactions		
Requirement	Description	Answer
Number of Total Users	Total number of users expected to use the solution	
Number of Concurrent Users	Number of concurrent users expected to use the system at the same time.	
User Locations & User Totals	Provide total number of users per each locations. Describe from where in the world will the solution be accessed or allowed to be accessed	
User Roles & Role Totals	List the user roles that will access the system. Include the total number of users per role. E.g. 2x admin, 1000x customer, 1x store manager, etc.	

Non-Functional Requirements

Business Continuity		
Requirement	Description	Answer
Business Continuity Plan	Describe the high level Business Continuity Plan. This is usually a created by business and IT management or IT governance.	
Minimum Acceptable Number of Users	Give a percent that indicates the minimum number of acceptable users in a disaster recovery situation. E.g. total users are 200, but in a disaster recovery, allow only for 10% user base	
Minimum Acceptable Number of Transactions	Give a percentage indicating the minimum number of acceptable transactions in a disaster recovery situation. For example 50% of the average transaction volume	
Minimum Acceptable Availability	Describe the minimally acceptable hours of operation and/or availability of the system in a disaster recovery situation	
Acceptable Performance Degradation	Give a percentage indicating the acceptable performance degradation that is acceptable in a disaster recovery situation. E.g. the existing UI performance is less than 2 seconds, however in a disaster recovery situation acceptable performance would be 4 seconds	



Non-Functional Requirements

Security		
Requirement	Description	Answer
Authentication	<p>Describe what authentication is required, and if required additional details should be provided to further clarify the authentication requirements (for example):</p> <ul style="list-style-type: none">• Username / Password Requirements (Complexity, Length, Numerical Numbers, etc)• Password change requirements (initial login, every 30 days, etc.)• Password Storage	
Authorization	<p>Details on the authorization requirements for the system. E.g. is the user or system authorized to access the database or API's</p>	
Attestation	<p>Details on the attestation requirements for the solution. E.g. managers need to review or approve user access, or process owner needs to review or approve user access</p>	
Audit Controls	<p>Details on any audit controls that are required for the solution</p>	
Confidentiality of Data	<p>Details on the confidentiality of the data for the solution. E.g. is it customer personal information, secret information or public information</p>	

Non-Functional Requirements

Security

	Description	Answer
Integrity of Data	Requirements in regards to the integrity of the data. E.g. the integrity of the public facing internet site would be considered high due to the reputational risk associated with unauthorized changes to the content.	
Logging Requirements	Detail on whether logging is required. Provide further details for logging: <ul style="list-style-type: none">• System Events to Log: Security, Configuration, Admin Events• Log File Details: Date, Time, User Initiating Activity, Details, etc.• Time period for keeping log information• Required reviews of log information (timing / responsibility)	
In Transit / At Rest	Describe the security requirements when data is in transit and when data is in storage or at rest.	
Functional Level Authorization	Details on the Functional Level Authorization requirements for the solution. E.g. Is a user allowed to perform a specific function on the system	
Data Level Authorization	Details on the Data Level Authorization requirements for the solution.	

Non-Functional Requirements

Operations and Monitoring		
Requirement	Description	Answer
Monitoring Requirements	Describe the monitoring requirements for the solution	
Operational Support Roles and Responsibilities	Describe any operational support roles and responsibility requirements for the final solution	

Non-Functional Requirements

Networking		
Requirement	Description	Answer
LAN/WAN Requirements	Describe any LAN or WAN requirements for the solution	
Cloud Networking	Describe any Cloud Networking requirements. E.g. VPC on AWS or VNet on Azure. Include the address spaces if known	
Network Bandwidth Requirements	Describe the the network bandwidth requirements for the solution	
Inbound/Outbound Traffic	Requirements on whether a firewall usage is required for the solution for inbound and outbound traffic	
Internal / External Connectivity	Describe any internal or external connectivity requirements for the solution. E.g. VPN, SFTP, API Gateways, etc.	
Load Balancing	Describe whether a load balancer is needed for the solution	

Non-Functional Requirements

User Interface Requirements		
Requirement	Description	Answer
User Interface	Details on the User requirements for the solution. If this solution is required to run on a laptop or desktop, describe the hardware requirements.	
UI Channels	Describe which channels will use the solution. Desktop, Mobile, Browsers, Tablets, IoT Devices, etc.	

Non-Functional Requirements

Architectural Requirements		
Requirement	Description	Answer
Architecture Requirements	Describe any specific architecture requirements for the solution: ·System Design - N Tier, Web Services, API, Containers, Kubernetes, etc ·Required Patterns, Pub/Sub, Queues, ESB, Microservices, etc.	
Environment Requirements	Details on the number of environments required and sizing for each of the environments. E.g. the application will require Development, Quality Assurance, User Acceptance Test, and Production environments. Production and UAT might have the same size, while Development, Quality Assurance can all be 10% of the Production environment	
Virtualization Support	Information on any requirements for virtualization support within the solution. E.g. on-premise use VMWare, Cloud use EC2 or ECS	
Development Stack	Detailed requirements on development stack that need to be supported as part of the build of the solution	

Current State Solution Architecture Diagram

Target State Solution Architecture Diagram

Architecture Objectives

Detail out the goals to be achieved from an architecture point of view with the target state solution architecture.



Architecture Constraints

Detail out the constraints under which the new solution will be designed, built and maintained. E.g. The solution will use the AWS cloud platform to implement the solution.



Architectural Risks

Describe the potential risks in relation to the architecture and the overall project of the target state solution architecture.

Integration Architecture

Data Architecture Diagram

Logical Deployment Model

Security Architecture

Networking

Development Requirements

Development	<i>Describe the development teams that will be impacted by this solution</i>
Configuration	<i>What configuration is required during the implementation of the solution</i>
Databases	<i>List the databases that will either change or new databases that needs to be created</i>
File Storage	<i>Describe the file storage requirements</i>
Data Migration	<i>Is there any data migrations needed for this solution or data capturing required</i>
Deployment Strategy	<i>Manual or automated deployments by using DevOps practices</i>
Reports	<i>List the reporting requirements part of this solution</i>

