TECHNICAL ARCHITECTURE

Template

Version 1.0 ● FEBRUARY 5, 2012

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Project Delivery Methodology (PDM)

**TECHNICAL ARCHITECTURE**

**Eli Research India pvt. Ltd**

**MYPHARMA THINKTANK**

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| VERSION: 1.0 | REVISION DATE: [Date] |

Approval of the Technical Architecture indicates an understanding of the purpose and content described in this deliverable. By signing this deliverable, each individual agrees with the content contained in this deliverable.

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# Section 1 DOCUMENT SCOPE

***Document Scope*** *describes the context and the goals of this document in a narrative.*

*Example:*

This document describes the Technical Architecture of the **myPharma Thinktank** System that satisfies business requirements, implements the functionality and satisfies technical, operational and transitional requirements.

The goal of this Technical Architecture is to define the technologies, products, and techniques necessary to develop and support the system, and to ensure that the system components are compatible and comply with the enterprise-wide standards and direction defined by the Agency.

This document will also:

Identify and explain the risks inherent in this Technical Architecture;

Define baseline sizing, archiving and performance requirements;

Identify the hardware and software specifications for the Development, Testing, QA and Production environments;

Define procedures for both data and code migration among the environments.

The Document Scope narrative also provides an overview of the efforts conducted to understand the existing technical environment and IT strategic direction and to determine how the system’s proposed technical architecture fits into them.

# Section 2 OVERALL TECHNICAL ARCHITECTURE

## 2.1 System Architecture Context Diagram

The **System Architecture Context Diagram** provides the “big picture” view of the system’s architecture, and puts it in context with the rest of the Performing Organization’s systems portfolio, illustrating how the system’s hardware and software platforms fit into the existing environment.



## System Architecture Model

myPharma Thinktank is comprises of several modules and these modules are explained in the **System Architecture Model**. TheSystem Architecture Model represents the various architecture components that comprise the system and shows their interrelationships.

**Company Module:**

Company Module is comprises of several submodules. Company will have Facilities, People and Contacts, Patents, Products, Deals, News, Sales, Financials, Regulatory, Key Events and Partnering Opportunities submodules.



**Product Module:**

Product Module will have Properties and Chemical Info, Development Details, Key Events, Pharmacology, Deals, News, Patents, Sales and Regulatory sub modules.



**Deals Module:**



**Patents Module:**



**Regulatory Module:**



**News Module:**

**Key Events:**

### 

### 2.2.1 Overall Architectural Considerations

*The* ***Overall Architectural Considerations*** *section defines how additional technical requirements have been addressed by the architecture. Representative items in this section may include:*

* *Security Strategy*
* *Performance requirements*
* *Accessibility*
* *Database sizing*
* *Transaction volumes*
* *Concurrent user*
* *Data import and export*
* *Data encryption and decryption*
* *Disaster recovery*

## 2.3 System Architecture Component Definitions

### System Architecture Component A

The **Architecture Component Definitions** section provides narrative describing and explaining each architecture component in the System Architecture Model, and identifies specific elements that comprise that component in this system. The following are examples of architecture components and elements:

|  |  |
| --- | --- |
| **Architecture Component** | **Component Elements** |
| Database Server | Processor: Intel(R) Xenon ® CPU E5-2673 v3 @ 2.4GHz 2.39GHz  RAM: 14GB  System type: 64 bit Operating System, x64 based processor.  Windows Server: Windows Server 2012 R2 Datacenter  SqlServer 2016 Enterprise version |
| Client Application | Processor: Intel(R) Xenon ® CPU E5-2673 v3 @ 2.4GHz 2.39GHz  RAM: 14GB  System type: 64 bit Operating System, x64 based processor.  Windows Server: Windows Server 2012 R2 Datacenter  Development Tool  Online Help Tool  Client Characteristics |

### *2.3.2* System Architecture Component B

# Section 3 SYSTEM ARCHITECTURE DESIGN

*The* ***System Architecture Design*** *section provides detailed descriptions of each product implementing architecture components, and explains the rationale for product selection.*

## 3.1 System Architecture Component A

*For each* ***System Architecture Component*** *(identified in Section 2.3 above), the narrative describes specific* ***Component Functions****, requirements and other* ***Technical Considerations*** *that were used in the decision-making process, as well as any specific* ***Products*** *selected to implement this component. The* ***Selection Rationale*** *identifies any other products that may have been considered, and provides rationale for the decision.* ***Architecture Risks*** *identifies any potential risks associated with the architecture element.*

### 3.1.1 Component Functions

myPharma Thinktank application will have multiple search functionalities and these are:

* Basic Search
* Advanced Search
* Company Search
* Product Search
* Deal Search
* Patents Search
* Regulatory Search
* News Search
* Events Search.

These search functionalities are explained in detail with the help of sequence diagrams:

**Basic Search**:

Once user logged successfully, user can perform basic search by clicking Search menu. Under Search Page, there are two tabs Basic and Advanced. In basic search, there are multiple search option available. These search options are Company Name, Ticker Symbol, Product Name, Active Ingredient and Therapeutic Indication. Once user selects required search criteria and Startswith/Contains from the provided dropdown controls, selected field unique values will be retrieved for autofill. Enter Search value from the list of autofill values and click on OK, search query will be processed and results will be displayed to the user.



**Advanced Search:**

In Advanced search, user can perform combination search from multiple modules. User can select search criteria’s from Company, Product, Deals, Patents and Regulatory modules.



**Company Module Search:**

In the Company module search, user can search the database based on the Company Name or Ticker Symbol or Stock Exchange or Industry or Therapy Area or Country or Partnering Opportunity or combination of these search fields. While selecting the multiple search criteria’s, all the search criteria’s will be appended the search query and executes as a single query in the database.



**Product Module Search:**

In the Product module search, user can search the database based on the Company Name or Product Name or AI or Therapic Indication or Phase Name or Highest Phase or Phase Status or Mechanism of Action or Mode of Action Chem.Biological Classification or ATC Classification or Route of Admin or Dosage Form or Country. User can also search by combination of these search fields. While selecting the multiple search criteria’s, all the search criteria’s will be appended the search query and executes as a single query in the database.



**Deals Module Search:**

In the Deals module search, user can search the database based on the Company Name or Ticker Symbol or Industry or Product Name or Deal Type or Deal Status or Country. User can also search by combination of these search fields. While selecting the multiple search criteria’s, all the search criteria’s will be appended the search query and executes as a single query in the database.



**Patents Module Search:**

In the Patents module search, user can search the database based on the Patent No or Company Name or AI or Patent Type or Theraphic Indication or Country. User can also search by combination of these search fields. While selecting the multiple search criteria’s, all the search criteria’s will be appended the search query and executes as a single query in the database.



**Regulatory Module Search:**

In the Regulatory module search, user can search the database based on the Company Name or Ticker Symbol or Product Name or AI or Theraphic Indication or Application No or Approval Type of Country or Application Type. User can also search by combination of these search fields. While selecting the multiple search criteria’s, all the search criteria’s will be appended the search query and executes as a single query in the database.



**News Module Search:**

In the News module search, user can search the database based on the Company Name or Industry or Product Name or Theraphy Area. User can also search by combination of these search fields. While selecting the multiple search criteria’s, all the search criteria’s will be appended the search query and executes as a single query in the database.



**Key Events Module Search:**

In the Key Events module search, user can search the database based on the Event Status or Country or Product Name or Company Name or Theraphy Area or Event Category. User can also search by combination of these search fields. While selecting the multiple search criteria’s, all the search criteria’s will be appended the search query and executes as a single query in the database.



### 3.1.2 Technical Considerations

### 3.1.4 Selection Rationale

### 3.1.5 Architecture Risks

## 3.2 System Architecture Component B

# Section 4 System Construction Environment

*The* ***System Construction Environment*** *section details the various environments necessary to enable system construction and testing.*

## 4.1 Development Environment

### *4.1.1* Developer Workstation Configuration

### *4.1.2* Supporting Development Infrastructure Configuration

## *4.2* QA Environment

### *4.2.1* QA Workstation Configuration

### *4.2.2* Supporting QA Infrastructure Configuration

## *4.3* Acceptance Environment

*For each environment necessary for system construction (****Development, QA*** *and* ***Acceptance****), provide detailed specifications for the* ***Workstation*** *and* ***Supporting Infrastructure*** *that will be used (including hardware, network and operating system requirements, all necessary installed packages and tools, and needed directory structures**that will be utilized to store all construction components).*

### *4.3.1* Acceptance Workstation Configuration

### *4.3.2* Supporting Acceptance Infrastructure Configuration