Project Topic

Developing databases for the spread and distribution of diseases

Introduction

The entity seeks to develop databases and integrate them with command-and-control centers in order to monitor the spread and distribution of plant pests and animal diseases and anticipate the future to prevent them. In addition to developing analytical use cases for historical and future data and developing the required information panels and processes, all of which serve the command-and-control centers at the entity's main center and its branches. The project also aims to integrate all sub-centers with each other, integrate them with the main center, and govern the transfer, storage, and display of data in the main center and sub-centers.

Project goals:

The entity aims to implement approved policies to combat diseases, by anticipating and studying the spread and distribution of diseases and taking preventive and remedial measures in early warning systems and command and control centers to ensure the health and sustainability of animals, enhancing private sector participation, and unifying efforts among government agencies. And special in this field. The entity seeks to develop databases for the spread and distribution of diseases and to measure the digital transformation maturity index in the entity by setting standards, requirements and a clear plan for measurement,

in addition to restructuring the electronic systems associated with electronic services, which include many electronic services for beneficiaries with the aim of improving and strengthening the entity's operational system and developing The services provided, increasing customer satisfaction, and preparing a governance system to define responsibilities and relationships with all stakeholders, by reviewing the current status of services, work mechanisms, the governance system followed, the technologies used, etc.; In addition to developing the structure of work procedures and performance indicators of procedures to ensure the highest added value for stakeholders. The main objectives are summarized as follows:

1. Achieving the entity's business strategy, vision, and targeted operating model
2. Facilitating access to processes and procedures by building a database to track and monitor the spread and distribution of animal diseases
3. Increasing the effectiveness and efficiency of processes and procedures in the entity
4. Developing the internal capabilities of the entity's employees in the field of work procedures
5. Increase opportunities for participation and cooperation between departments and effective use of resources
6. Build a methodology and plan to measure the digital transformation maturity index in the agricultural sector for the region's system
7. Improving the digital flow of the entity's system
8. Speed up the processing process and increase productivity
9. Ensuring continuity of operations
10. Improving the quality of services and raising the level of efficiency and effectiveness
11. Capacity for expansion and development of agricultural services
12. Alignment with the requirements of the entity's institutional structure

Project scope and technical conditions:

The scope of work includes several stages, the goal of which is the optimal implementation of the project and ensuring its implementation in an integrated manner to achieve the desired goals. Accordingly, an appropriate work methodology is determined to cover all the points mentioned in the project brochure, which includes the main stages, which are the following:

1. **Study the current situation and understand current data**

   The first stage aims to analyze and improve data management in multiple platforms, such as the Anaam platform, a Zirai platform, and Nama platform. The work includes documenting procedures and the data life cycle, reviewing current data management policies, determining compliance with them, reviewing existing data and assessing gaps. The techniques used in data integration and redaction are also understood, while implementing policies to protect vital information. Finally, the work includes analyzing data from various platforms to improve their integration and feed data control centers.

2. **Development & integration Databases**

   In the second phase, data integration processes are structured, starting with defining the required enterprise architecture and designing and modeling the source data. The work includes pulling and refining data from various sources to serve command and control centers. Databases are being developed to enable monitoring, warning and rapid intervention services. It is required to implement data management policies and achieve integration between the centers and the entity's sources. Data integration takes place at the main center and between sub-centers to control data flow.

3. **Develop use cases, dashboards and key processes**

   This phase includes the development and implementation of a variety of models, interactive panels, and processes in command-and-control centers to monitor and control the spread of plant pests and animal diseases. The work also includes designing and developing an integrated platform for main and subsidiary centers, and integrating all developed systems. It includes a commitment to national cybersecurity controls to ensure the security of data and operations.

4. **Providing training and transfer of knowledge**

   In the training and knowledge transfer phase, the efficiency and quality of the developed systems are improved through training the entity's staff and transferring knowledge to the employees of command-and-control centers in all locations. This includes an explanation of the steps used and the tools used. The contractor is committed to providing comprehensive training to the entity's work team, using various means such as on-the-job training and training workshops, to ensure the transfer of the necessary knowledge and experience to project employees.

5. **Providing technical support**

   The phase includes providing technical support for all systems in all locations, with a support period extending for one month. Periodic software updates are also provided to ensure the continuity of the developed systems. A technical support employee is appointed for each site, with the necessary skills to control, maintain, and provide support for all systems.

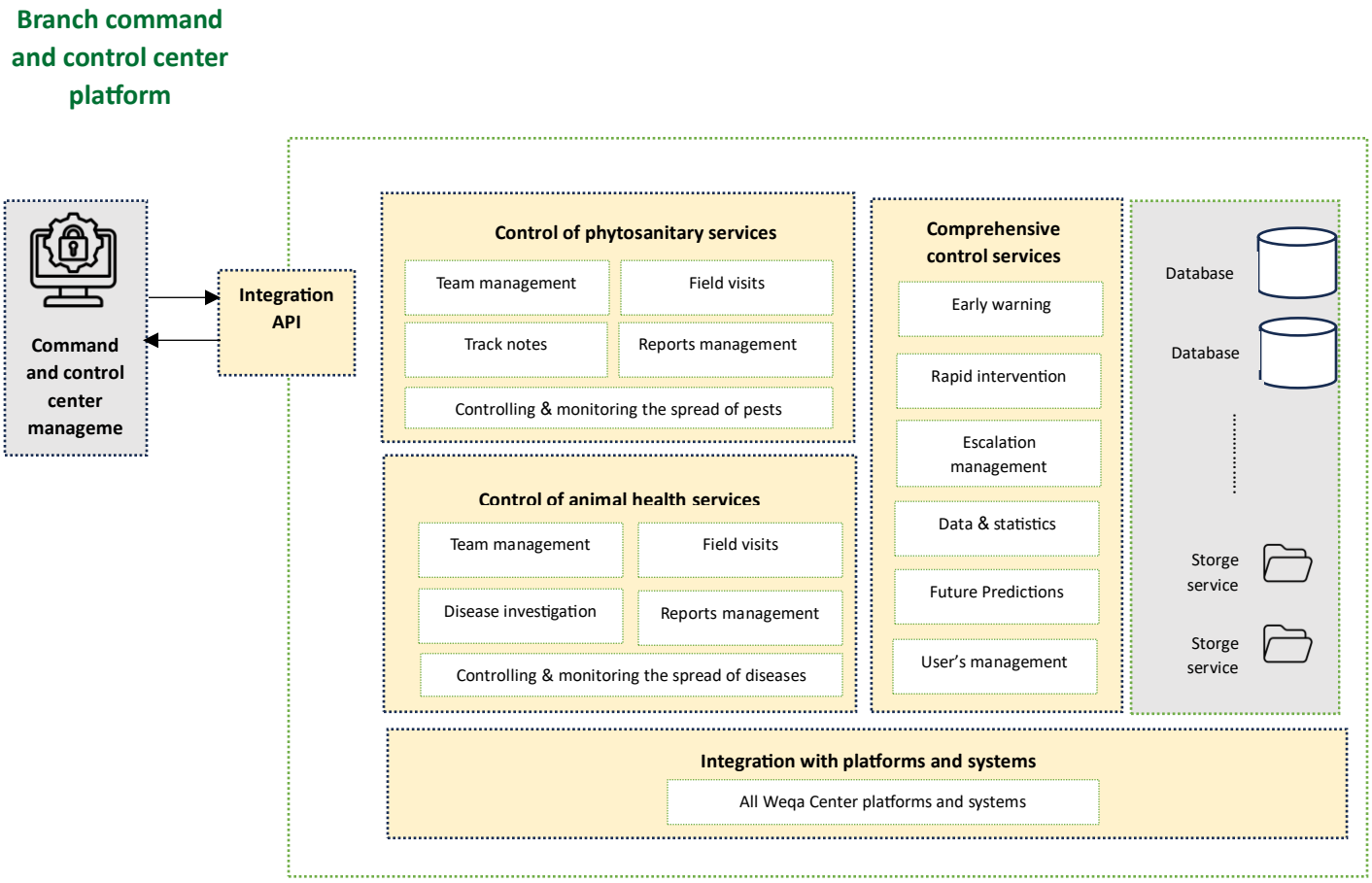

Figure 1: Initial visualization of the software structure of the sub-control centers.

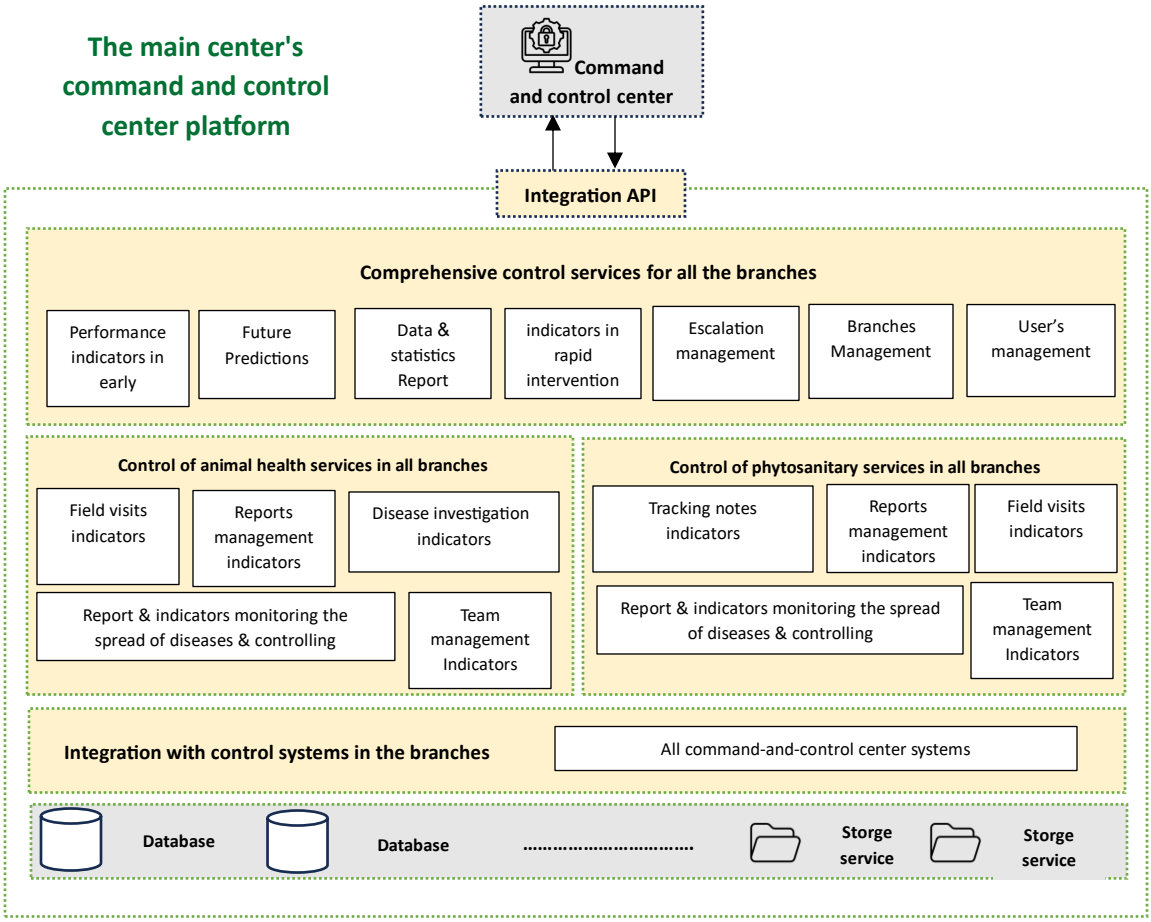

Figure 2: An initial visualization of the software structure of the main center.