

## **Assignment 3**

### **Background:**

XYZ Corporation is a supplier of laboratory automation, lab equipment and chemical supplies to various universities, hospitals, and industrial and clinical labs. It recently entered the diagnostic testing market and has decided to sell its MTSTPro system to its current customers to be used for Covid-19 testing.

XYZ Corporation has a centralized IT organization. It already supports sales and marketing, manufacturing, and supply chain. It has good support for CRM, ERP, MES and SCM systems. It mostly relies on in-house expertise for those systems. It has an internal data center and thus far has made limited use of Cloud capabilities. It relies on Waterfall delivery cycle. It also has an IT Project Management Office that centralizes the project management skills within the organization. It has decided to implement several systems, including a Data Management System, a Product Lifecycle Management (PLM) system, a Quality Control System etc.

The IT organization has decided to move towards the adoption of an agile approach. It wants to do that in 2 steps. It wants to start with an experiment with a small team. For that purpose, it has picked the CRM team as part of the experiment. The CRM platform is Salesforce. The team is currently composed of 9 team members, mostly CRM analysts and developers. It also includes one business analyst that helps capture the requirements for new development. It wants to start with a simple adoption of an agile approach (either Kanban or Scrum) to implement the new requirements to support MTSTPro customers. The same team also supports the current production CRM system (so handles any defect fixes) and will also be handling business requirements from legacy users (i.e., other business needs unrelated to MTSTPro).

In the next step (Step 2), it wants to move several initiatives to a larger agile effort. It wants to potentially consider the use of Scrum of Scrums, SAFe, or the Spotify method. Step 2 consists of the delivery of the PLM System, Data Management System, Enhancements to the Analysis capabilities, Build QC Capability, Enhance Manufacturing IT Capabilities initiatives. The entire effort consists of about ~90 IT professionals comprising developers, testing engineers, analysts, architects, product specialists and 6 project managers, and I&O staff that is available as needed. Managers for each area are not included in this number.

For Step 2, the teams are largely dedicated to working on new requirements coming from the MTSTPro work. In other words, they do not need to consider legacy requirements or requirements coming from the design and manufacturing of existing services or products. They are not involved in any production support either.

**PLM System:** 25 technical professionals with 3 embedded business resources from R&D (mostly subject matter experts)

**Data Management System:** 20 technical professionals with 2 part-time R&D subject matter experts

**Analysis Enhancements:** 6 technical professionals with 3 R&D statisticians and data scientists

**Build QC Capability:** 12 technical professionals with 1 R&D data scientist and 2 of the R&D statisticians shared with the Analysis enhancements

Enhance Manufacturing IT capability: 15 technical professionals with 2 Manufacturing subject matter experts.

Furthermore, there are another 7 Infrastructure & Operations personnel (system administrators, Server & Storage Engineers, Database Administrators etc.) that are available as needed to help with the effort. Cybersecurity & Risk Management is available for consulting as needed.

Figure 1 shows the initiatives and how they are planned. Many of these systems are being developed in parallel but they will need to integrate with each other at various points in time. Figure 2 shows that the IT organization is structured as a matrix organization. Project Managers and Architects have their own managers within Strategy and Governance. The Application Developers and product specialists report into their own managers within the Application & Delivery (A&D) organization. The Testing Engineers and Business Analysts have their own managers within the A&D organization. Infrastructure & Operations personnel report into their own vertical.

### **Your Role:**

Given the wonderful job you did working with ABC University and preparing their online education program, you have been hired as a consultant to advise the XYZ CIO.

The first part of this engagement is advising the CIO of XYZ Corporation on which methodology to adopt. For the CRM implementation, the CIO has asked for the following:

- 1) What methodology should they adopt: Scrum or Kanban? Or should they do something else altogether? For this exercise, you should compare the pros & cons of Scrum and Kanban and make a recommendation for which one they should use and why.
- 2) For the recommended choice, what roles do they need to have on the team?
- 3) Any recommendation for any tools or products they should consider evaluating for managing their work (i.e., an Agile Lifecycle Management tool). Note the goal is just to identify some well-known tools that the organization should consider; goal is not to make a final selection.

The next part of the engagement is to determine how to execute Step 2. The CIO is looking for advice in the following areas:

- 1) Which methodology would you recommend: SAFe, Spotify, or Scrum-of-Scrums? Again, provide the pros & cons of each approach, with your recommendation. Note: scaling from a cross-team perspective. Some of the teams are large teams (e.g., PLM is 25 tech professionals) and are typically larger than a typical scrum or Kanban team. However, you don't have to solve for that problem in this assignment. Your goal is to solve the problem of integration across teams.
- 2) For the recommended choice, what roles would they need to have on the team?
- 3) How would the project managers be utilized, or will they need to take on a different role in this model?
- 4) Are these initiatives to be run as agile projects or should these be run as product teams, as many IT organizations are starting to do?
- 5) Finally, The CIO's biggest concern is that she has never seen agile methodologies in action before. She wants to make sure that a) agile methodologies do involve some level of planning and b) they have a way of demonstrating progress to a plan and c) the solution is technically and architecturally sound. In other words, agile methodologies contain disciplined approaches to

managing and governing the work both from a planning and execution perspective and do support a level of architectural oversight to ensure the delivery of a technically robust solution. Your paper needs to address her concerns.

Your goal is to prepare a paper with your recommendations (about 10-12 pages) outlining the answers to the questions mentioned above.

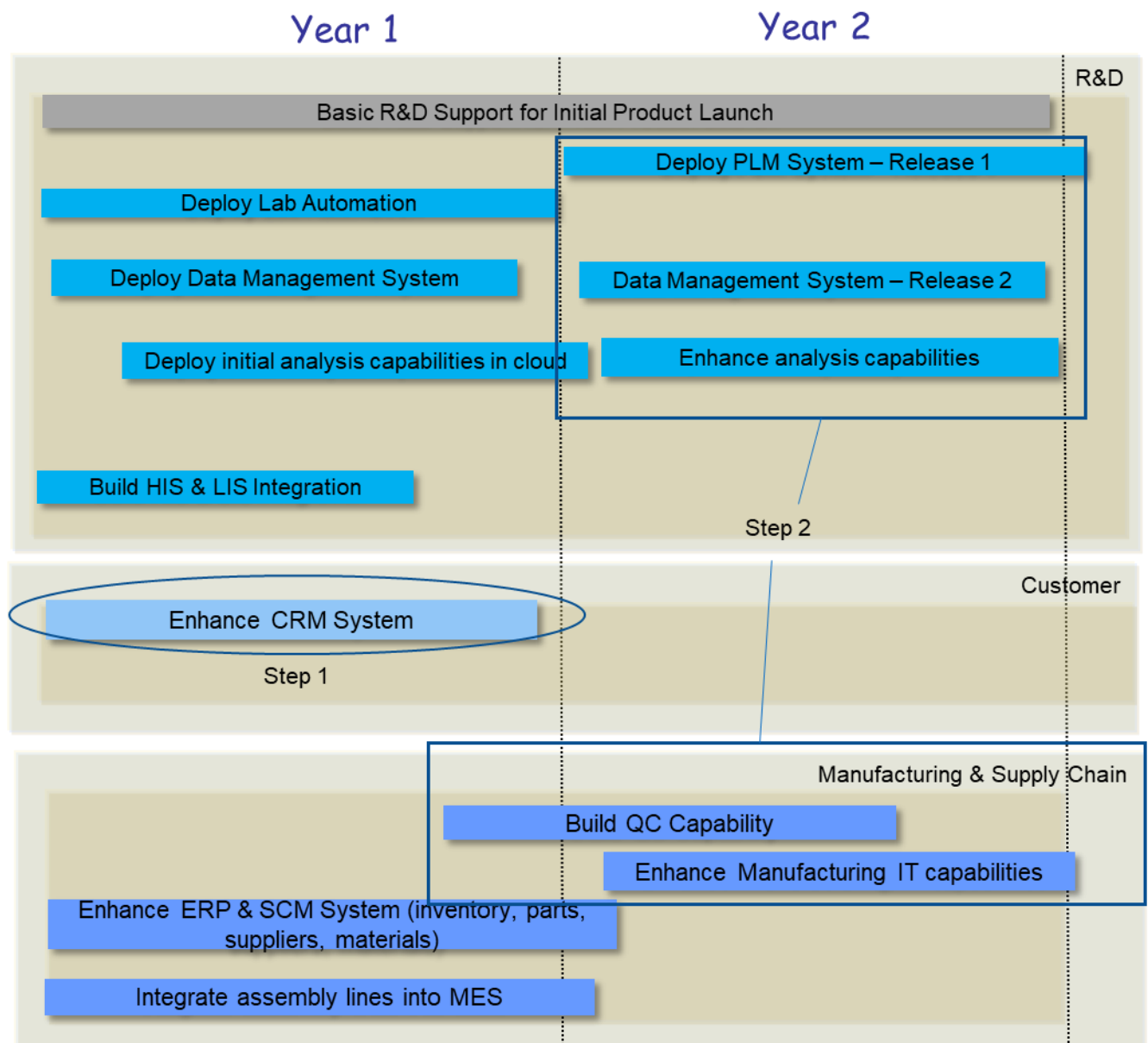


Figure 1

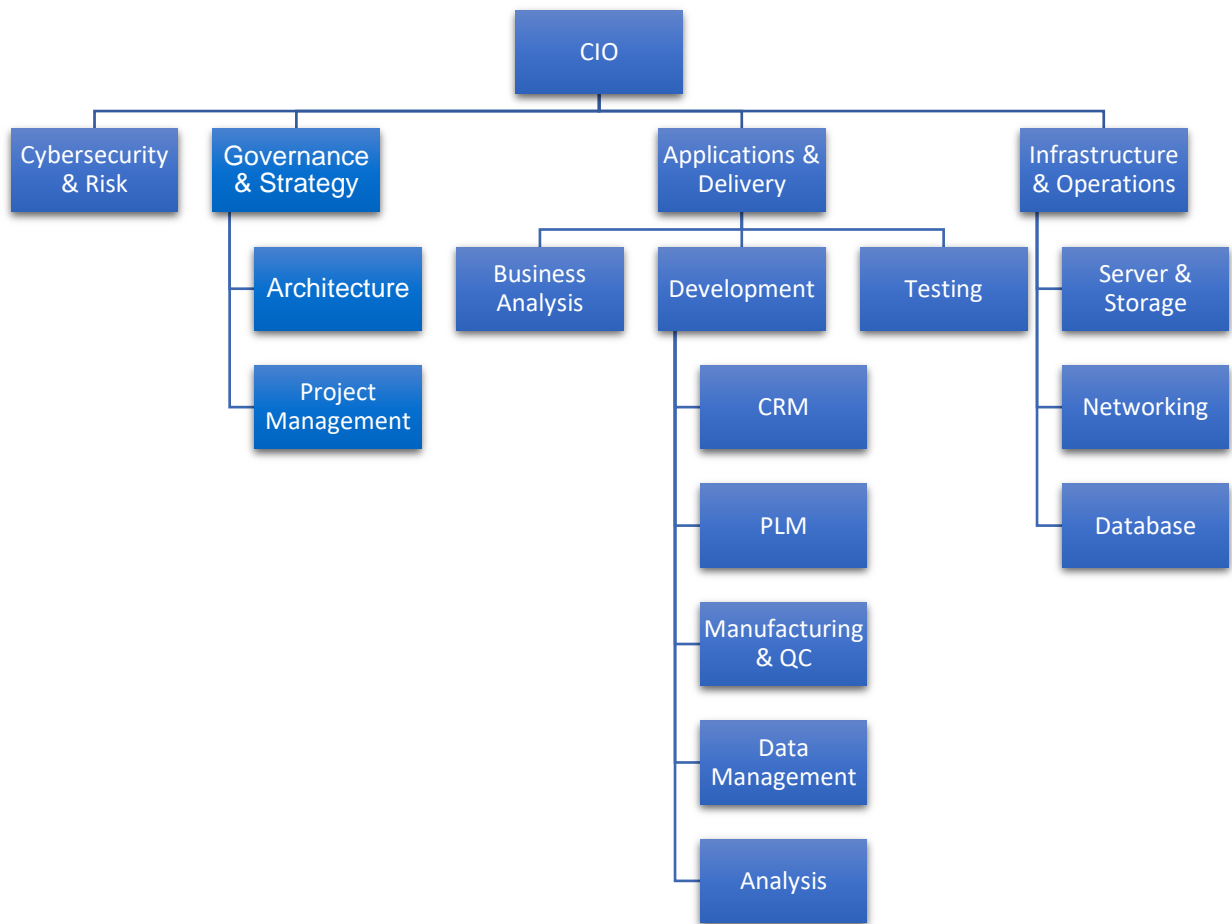


Figure 2