**242 – What technological obstacles did you have to overcome?** 350 words max **–** 50 lines of 78 characters

The state of technology at the beginning of the project had several shortcomings and/or limitations, as well as technological problems and unknown elements, as described below:

**Data Migration Tools for CMS system**

The most difficult challenge is moving one data structure to another, called Data Transmit, where in the legacy system all of the data is in one bulk layer, whereas in the new architecture, it is divided into three components, links, text, and images. We were uncertain of the development approach which would allow data connection and data transport between two CMS system versions, where the data content would be displayed from both sides from the different versions.

**244 – What work did you perform in the tax year to overcome those technological obstacles?** 700 words max - 100 lines of 78 characters

**Data Migration Tools for CMS system**

Through March to August 2015, we worked on obstacles related to data Transmit; specifically, the ability to migrate data from one system to another, we **hypothesized we could abstract from the particular system data type and schema, and focus on technologies that can work platform independently. Our development of data migration tool doesn’t restrict to particular versions of CMS system.**

PAYMENT TRANSACTION SYSTEM – 1000 hours for 2016

CMS system is a framework that works as a developer, starting with a data template.

- IA (information architecture)

This data template is now converted to multiple things in a different structure. Data can be transferred to different places. This complex idea is still not complete. The tool needs to be intelligent enough based on the provided tools and on what the database can do. This tool will only be used by CMS system developers for now. This is the same concept with a different structure as Share Point. Conveyor indexes everything similarly, it understands the database concept.

- TAX LAYER is also being integrated for the TAX LAYER New commerce.

Technological Constraints:

- Technology does not contribute very much to the integration

- Drawbacks have been related to latency and request processing times. Restful API development exists here however, we’ve experienced this latency in data manipulation.

- Development approach is the same for the data connectors. They are all being connected to create data connection layer allowing to generically connect with CMS system and third party providers

This was implemented successfully without impacting overall system performance and data transport speeds significantly.

**246 – What technological advancements were you trying to achieve?**  350 words max - 50 lines of 78 characters

The objective of this project is to develop a framework of integration-oriented tools and components for the CMS system platform, which offers a centralized, loosely-coupled, dynamic layer for managing future data service integrations. We attempted to move the logic away from individual endpoint sets into a logically centralized layer. The framework is able to handle unidirectional or bi-directional integrations, either implemented as real-time event-based/listening triggers, or as scheduled batch processing.

We intend to define approaches to create data manipulation models and tools to capture, manipulate and process data and visual content with high quality output while not degrading browser or source API stability or performance.

We worked on the research and development of a number of technological advancements, such as: Tax Estimate and Address Validation Module, Payment/Transaction Management Layer, Commerce Content Customization Module, and Data Migration Tools for CMS system.