**Local Environment Setup**: While configuring the development environment, the below listed software’s are required

* + Apple Xcode
  + Oracle Virtual box
  + Hashicorp Vagrant
  + Ubuntu 16.04 which is managed by Vagrant.
  + Node, NPM, Gulp installed globally
  + Homebrew (optional)
  + Bitbucket account and SSH configuration
  + Atom and PHPStorm

**Code Repositories**: Some of the useful code repositories are listed as

* Bitbucket hosted – G&V owned Bitbucket account. G&V have Dyson repo along with another client repo. Need to migrate repo in sometime.
* Dyson Vagrant repo
* Market/install specific repos - Repo for each Market e.g. Dyson IN, Dyson KR etc.
* Custom module repos – Repo for Custom module build.

Non composer enabled vendor module repos – Repo for module which are not installed via composer e.g. PayU India

**Anatomy of Dyson Vagrant**:

* + Dyson CLI
  + Provision (installing packages)
  + Site: Setup (webserver, email and db config)
  + Deploy (move code around)
  + Push/Pull (move assets and data around)
  + AMI (AWS Amazon Machine Images) – G&V owned Bitbucket account.
  + Ansible
  + Group Vars (config) – It is dictionary of database, config and data
  + Inventories (Environments) – We do not have inventories on AWS but having inventories on Digital Ocean
  + Roles (Dyson CLI tasks trigger these)
  + Overrides (patching in hotfixes and critical patches when vendor cannot provide)

**Mac Setup prerequisites**: The prerequisites for setting up for Mac are as follows:

* Apple Xcode
* Oracle Virtual box
* Hashicorp Vagrant
* Homebrew (optional)
* Node, NPM and Gulp installed globally (optionally via Homebrew)
* Bitbucket account and SSH key access configured

Dys**on Vagrant setup steps (provision):** The below are the steps for setting up of Dyson Vagrant.

* Clone Dyson Vagrant repo
* Create username file and rename Vagrantfile.sample to Vagrant file
* Run vagrant up and vagrant ssh
* Create and insert Ansible vault password file
* Run dyson provision dev

**Dyson Vagrant setup steps (dev site setup – e.g. Dyson India)**: The below are the steps for setting up of Dyson Vagrant in Dyson India

* Clone Dyson Market repo
* Run site setup for that market in dev
* Run composer install
* Pull a database to dev – e.g. for India dyson site:db:pull prod in
* Pulls a sanitized copy of prods database
* Pull uploads to dev – e.g. for India dyson site:uploads:pull prod in
* Run npm install and gulp styles to build frontend
* Acquire develop domain (e.g. local.shop.dyson.in) from Ansible group Fars
* Add to your hosts file with Dyson Vagrant’s IP
* Dyson IN running in local dev

**Remote Environment Setup**: While configuring the Remote Environment Setup we need an AWS cloud to create AWS accounts.

AWS –

* 2 staging account (staging Dublin and staging Seoul)
* 2 production account (production Dublin and production Seoul)
* Four individual AWS accounts.
* Rackspace provides managed AWS account. Need to login Rackspace single sign on and can access AWS console.
* Rackspace offer 24\*7 support
* G&V maintains, configure and pay the Rackspace account and invoices Dyson

**Digital Ocean**: Apart from 4 AWS Environment, one more Digital Ocean Environment is present. It is pre-prod environment where we write database with couple of Prod. It is single virtual server which is called as Droplet. Run multiple virtual hosts for any Market we need to. It has 1 virtual cloud server. Each market has pre-prod site. Pre-transition, a proposal was submitted to create a proper pre-prod in AWS, not Digital Ocean. G&V handle complete Digital Ocean account (no Digital Ocean SLA in place). Rackspace AWS account is Dyson account and can be transferrable but Digital ocean account is G&V account we can export and import to another digital ocean account. The local environment called Dyson Vagrant which contains the tool which allow to install packages on AWS or refresh or rebuild config on Ngnix AWS

**Magento Version and Market Mapping**: Dyson has mixture of versions and licenses in use. Initially some markets on Magento2 open source (community or CE). Since past 9 months some key directive markets are on Magento2 Commerce (Enterprise or EE) Also have both mixture of 2.2x and 2.3x versions. 2.3x is safe and secure version that too on commerce version to be on even though the 2.4x is the new one.

**Customer Journey and Purchase**: A customer journey at Dyson online store starts when a customer lands at the website and starts exploring customer journey approaches include like adding to cart, checkout, shipping, billing, payment. And then.

* Customer facing transaction is complete.
* Order is sent to CRM for processing.
* Customer is emailed success email.
* Once fulfilled, Magento is notified and emails customers.

In order to make a purchase a customer has to add the product to the basket and complete the checkout as a guest, so no registration is needed. Except Hong Kong, all markets are guest checkout only we have few product types

* Standard Finished Good
* Parts and Accessories
* Soft Bundle

**User Community and Demographics**: It covers how to extract out the complete overview of different users and ecommerce features which Dyson might be using in ecommerce world. In Engineer’s perspective it’s neither a clear topic, probably very market specific. Likely get 19 different versions from 19 different markets. Below the list of features which exist in Dyson site:

* + - Stock Aware: “Notify Me” functionality allows the customers who are interested in out-of-stock products, can provide their email address and get notified about the items when they are back in stock. The detail explanation on this custom module is explained in section 5.6.18.
    - Cart Abandonment: Dyson owned saleCycle runs on some markets and offers abandoned cart functionality. The details can be referred in section 5.6.23.
    - Customer Experience Monitoring: Decibel runs on some markets and offers customer experience monitoring. When there is any problem reported by customer then Dyson technology team reaches out to Decibel team for customer data. Once data is received the technology team performs the analysis to understand the customer problem and provide resolution. Purpose of decibel is to perform analysis on website to improve overall journey and not resolving technical problem faced by customer.
    - Customer Personalization: Adobe Target is not frequently used by all markets and Dyson has the option to use it whenever it is required. Need to capture more details on this. Magento – only turns on/off the feature – another team handles it (dyson)
  + AI Chat: Bold chat is an AI based chat functionality which enables the Dyson customers to initiate the chat and start experiencing the connected consumer experience at Dyson. A customer can seek for immediate help and Dyson can respond faster on customers’ queries.
* Google Tag Manager - This is a custom module which enables Dyson to manage the tags in their ecommerce website. This module plays an important part in search engine optimization as well helps in enabling the tracking easier in analytics tools such as Google analytics.

**Roles & Permissions**:

* Admin: Standard Magento2 Role and Permission is applicable for all 19 markets. Most of the admin user needs Azure MFA authentication before landing to Magento Admin login Page. Azure MFA is owned and issue by Dyson. Magento account for Dyson people are issued by Dyson OE Support/Accenture. Magento account for G&V people are issued by G&V. In near future Azure SSO taking over Magento2 user/role/login management.
* Customer: All the market has guest checkout except Hong Kong Market. Means only Hong Kong market has registered user functionality rest market do not allow customer to create an account. Hong Kong Market customer account support is handled by Jebsen (distributor) call center.

**Configuration Details**: Configuration details can be divided into the following segments.

* Catalog Management.
* Dyson Content Management Section. S
* tore Management

**Catalog Management**: Catalog Management consists of Catalog and Soft Products.

* + - Catalog- Products: Products have standard Magento2 required attributes like name, sku and price. In addition to this there are Dyson specific attributes are also used to define the Dyson product. Dyson attributes are the custom product attributes which is different from OOTB Magento2 product attributes
    - Soft Product: we need to setup soft product in the admin panel. There are different options available for the admin user to select primary and optional products.
    - Content Management:
      * Page Configuration: -This is a customized module developed by Dyson for displaying the content on the Dyson e commerce website.
      * Page configs is available under the CMS module.
      * Page configs is a collection of row configs. To add new page config, we must give the name of the page config and content tags of the page config.
      * Within the row configs, we can select multiple row configs.