WALMART MEXICO

WALMART MEXICO CA AZURE DEPLOYMENT

CA-100

PROJECT SCOPE DEFINITION

VERSION <1.4>

<03/26/2020>

DOCUMENT CONTROL

DOCUMENT INFORMATION

	Information
Document Id	*CA-100*
Document Owner	*Hillis Emanuelson*
Issue Date	*02/04/2020*
Last Saved Date	*03/26/2020*
File Name	*WalMart CA Azure Deployment]*

DOCUMENT HISTORY

Version	**Issue Date**	**Changes**
[1.0]	*2.4.20*	*Initial document draft*
1.1	2.5.20	Updated to include arch. diagrams
1.2	2.5.20	Updated project pricing
1.3	2.6.20	Updated exclusions and document formatting – final draft
1.4	3.26.20	Added diagram

PROJECT SCOPE DEFINITION

Create and deploy private cloud environment within Azure for CLIENT for Connected Analytics solution that will house data pulled from installed devices from multiple retail locations.

Critical Path:

1. Call with Technical Resources
    a. Update on overall project status
    b. Review and validate the Master Project Plan specific to infrastructure installation
    c. Review project site details
    d. Discuss items pertinent to this infrastructure installation
    e. Determine if there are any items outside of scope that need an addendum
2. Setup Private Cloud and networking
3. Setup Active Directory
4. Setup VPN
5. Setup RDS or an equivalent MySQL database
6. Validate base OS image
7. Provision all servers
8. Install HDP and HDF
9. Configure HDP and HDF
10. Install and configure Druid
11. Deploy NiFi flows, Airflow scripts, Hive tables, Druid ingestion
12. Install and configure the authentication cluster
13. Test data ingestion end-to-end
    a. Confirm all devices performing correctly
14. Spin up front end servers (web server and API server)
15. Deploy application and configure
16. Functional Testing

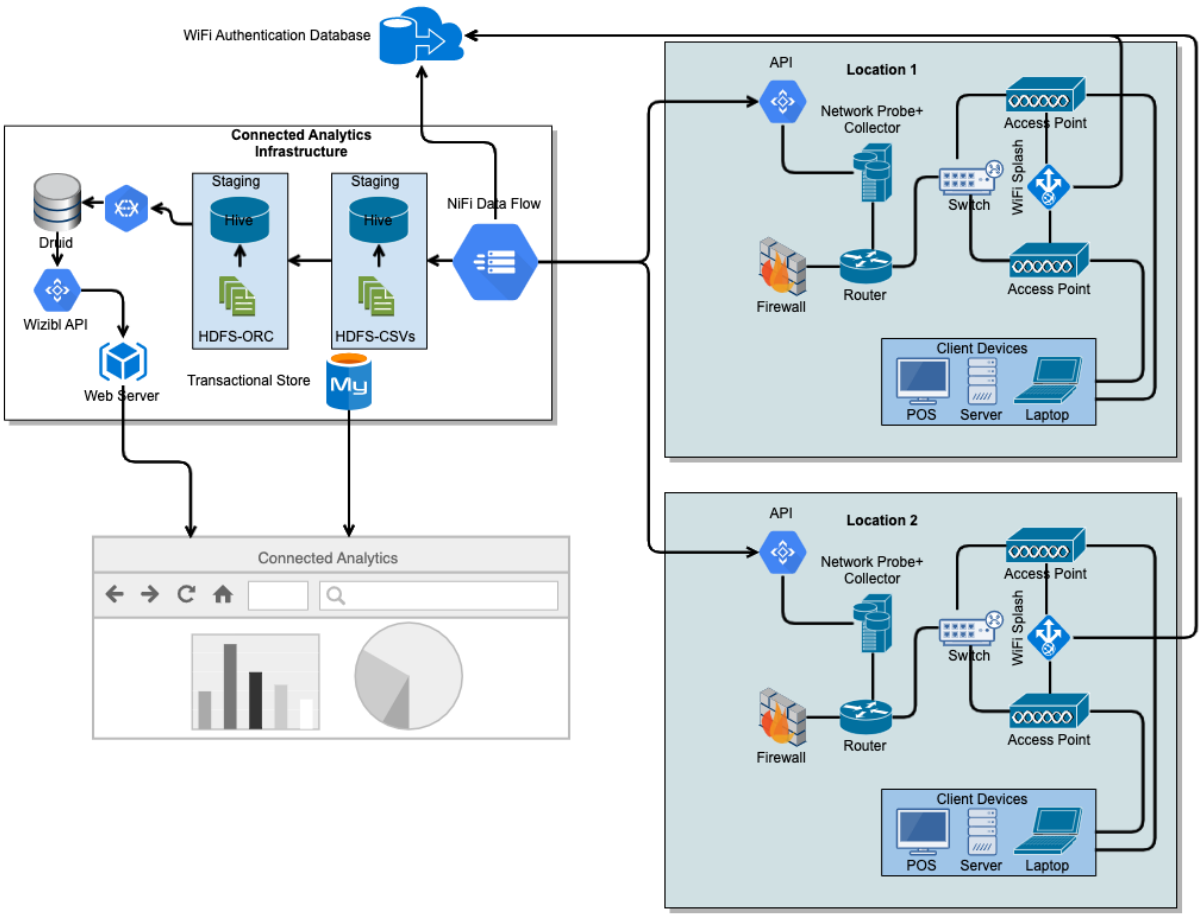
Elapsed Time: 4 weeks

Cost:

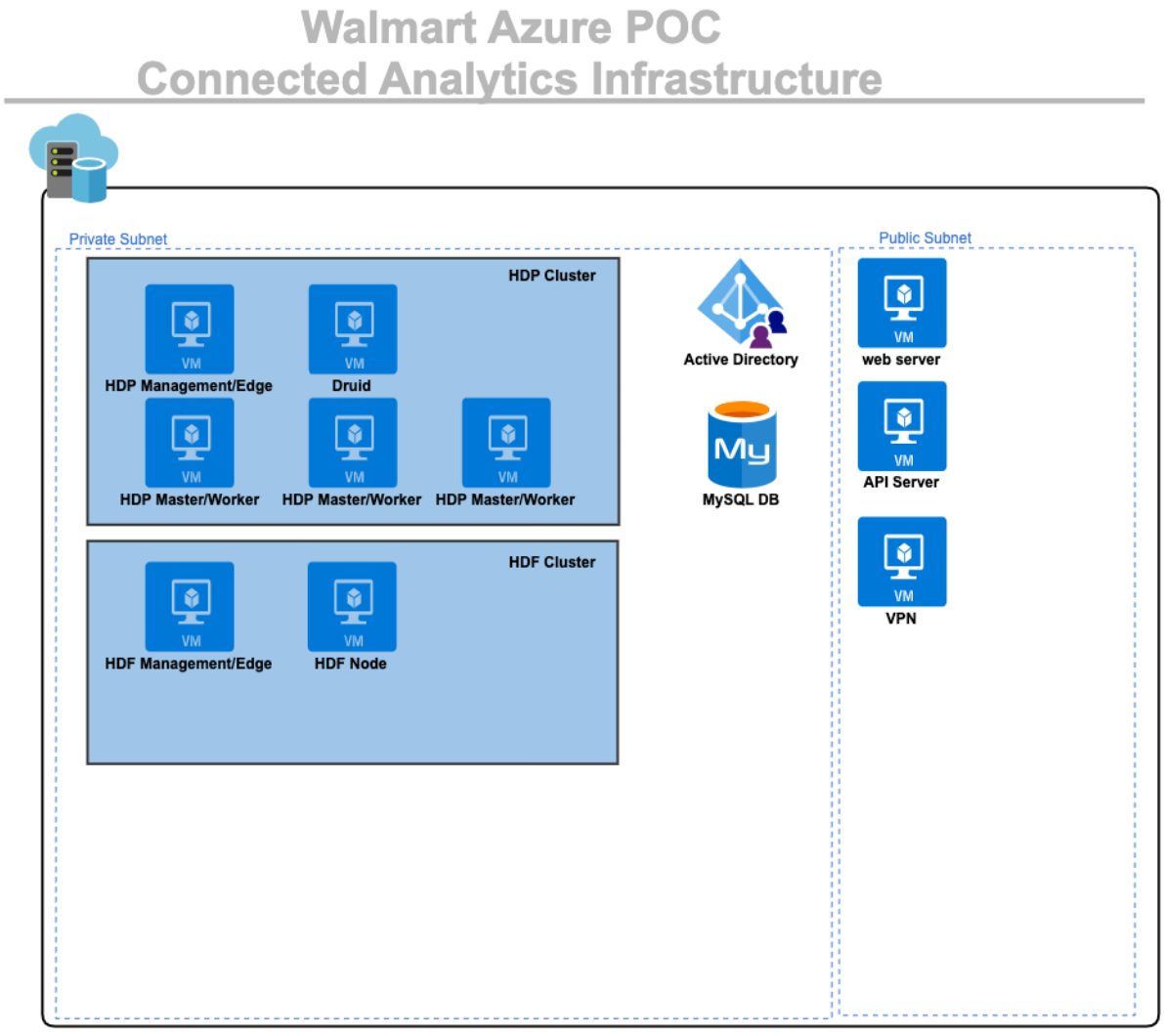
- Build, install, and configure CA with authentication in Mexico: $24,000
- Estimated monthly infrastructure costs (from day one): $5,000/month
- Monthly maintenance (after 6 weeks); $1,500/month

Architecture

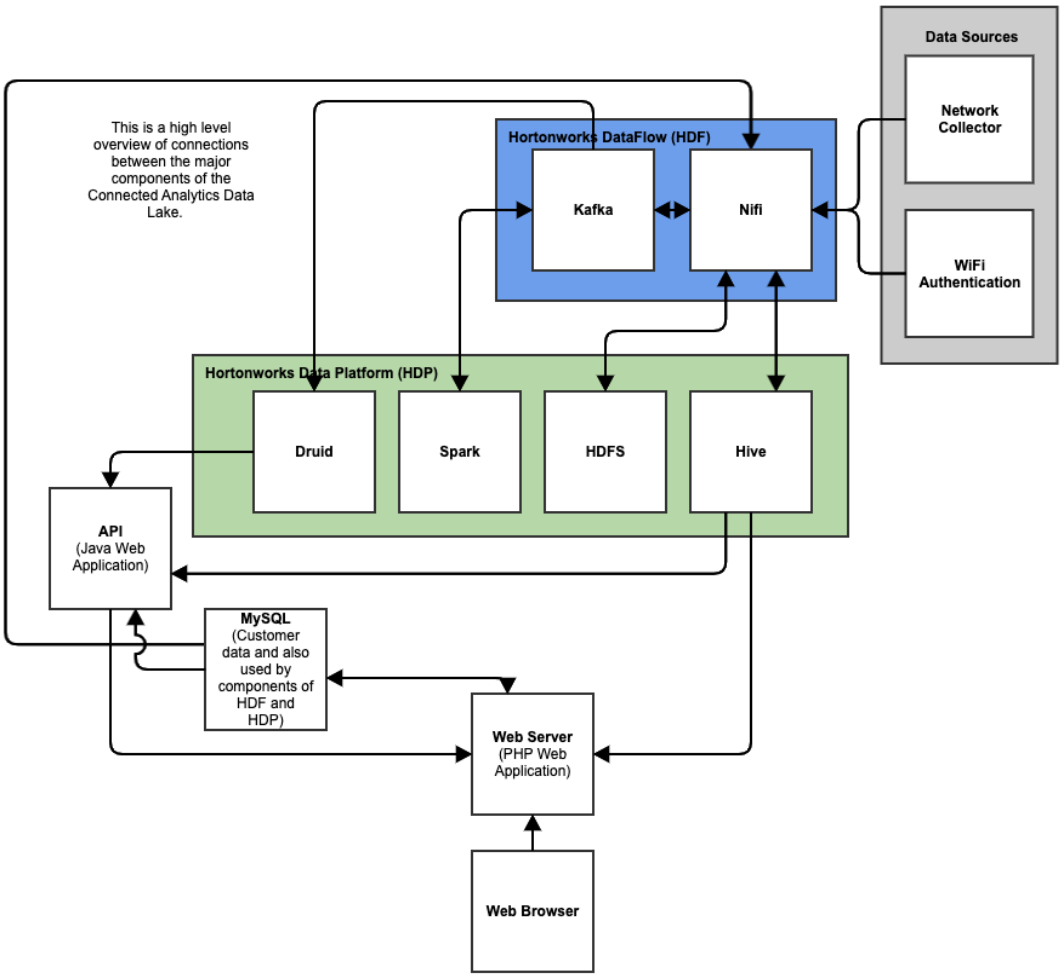
High Level Data Flow



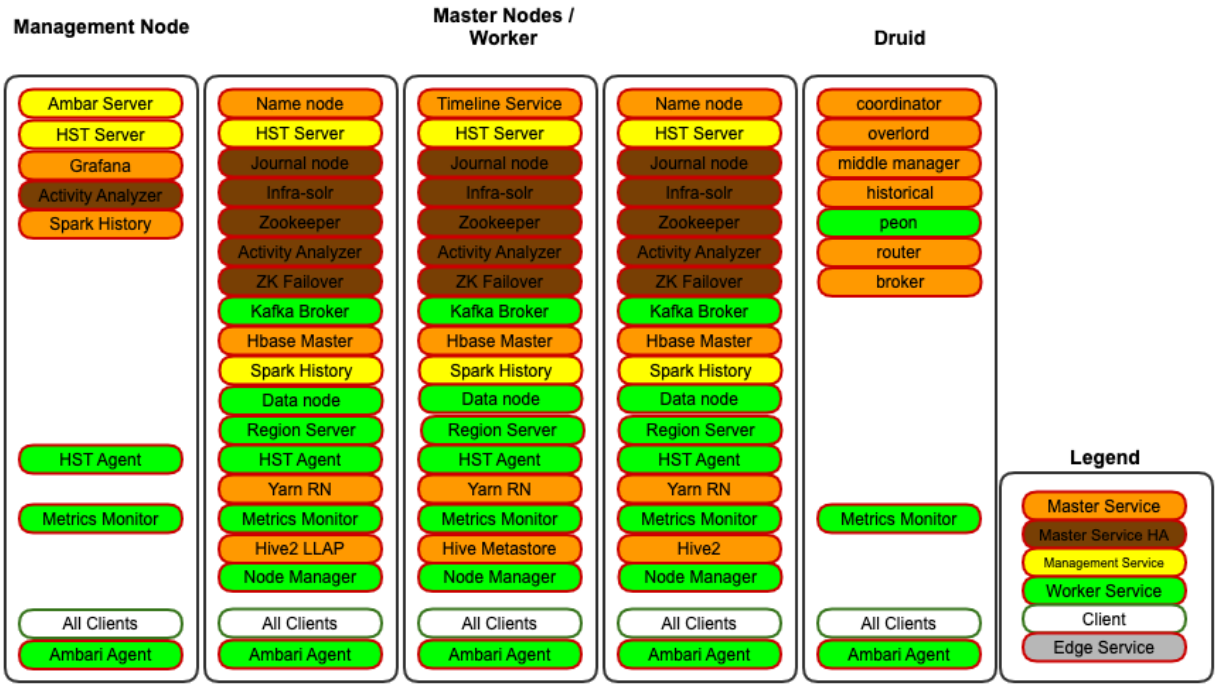
Cloud Infrastructure Components



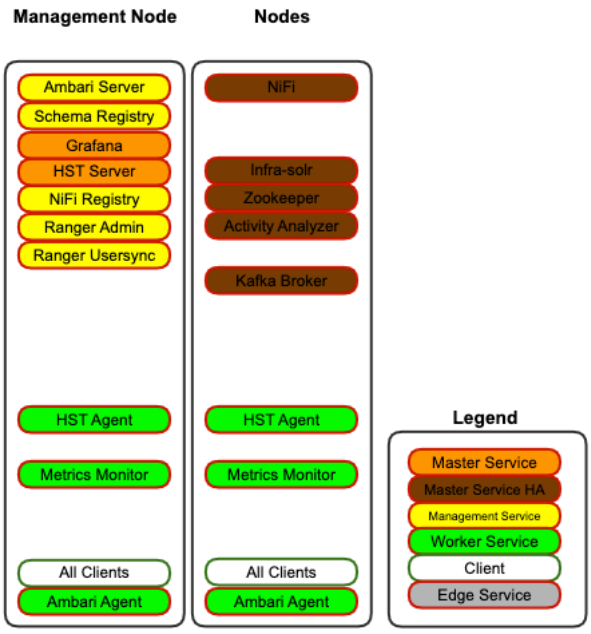
Datalake – High Level



Hortonworks Data Platform (HDP) layout



Hortonworks Data Platform (HDF) layout



DELIVERABLE SCOPE DEFINITIONS

Deliverable title and description	*Assumptions and constraints*	*Exclusions*	*Acceptance criteria*
<Describe the deliverable in detail,	*<Note any assumptions that have been made in*	*<Describe any items or*	*<Describe the set of conditions that*

including any relevant references.>	*relation to the deliverable, see below example entries. Also include any constraints (limiting factors) relevant to this deliverable.>*	*characteristics that excluded from the scope of this deliverable.>*	*the deliverables need to be met for this deliverable to be accepted.>*

PROJECT ACCEPTANCE CRITERIA

TBD

PROJECT ASSUMPTIONS AND CONSTRAINTS

- The critical path and timeline assumes we will have complete admin access.
- The critical path and timeline assumes there is an Azure data center in Mexico for us to utilize.
- This critical path and timeline assumes the underlying Azure account and infrastructure are newly deployed and free of artifacts and unknown conditions or constraints.
- We will need 30 days advance notice to ensure resource availability.
- Any additional deliverables or project requirements related to the project that require additional cost will be detailed in addendum SOW or SOW's.

PROJECT EXCLUSIONS

- The deployment scope is for a demonstration-scale environment and use. Many normal features of a production environment are not contemplated in this scope.
    - Does not include HA
    - Does not include Active Directory Integration. Will leverage MIT Kerberos for authentication
- Sizing and tuning of the infrastructure is not included. As the impact of the workloads become better understood, additional work in the form of adds, moves, and changes may be required.