



***AMERICANA FLEET MANAGEMENT AND TELEMATICS***

**BUSINESS CASE**



Business Case	
Project Title	<b><i>ALMP FLEET MANAGEMENT AND TELEMATICS</i></b>
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### **Document Control**

Version No.	Date	Author	Change History	Reviewed By	Approved By
V 0.0.1	12-10- 2023	Vinod Kumar Tiwari			



# Contents

EXECUTIVE SUMMARY ..... 4

PROJECT DESCRIPTION ..... 4

Delivery Cost and Budget..... 4

Savings and fleet compliance ..... 5

- Improved safety and compliance ..... 6
- Reduced fuel costs ..... 6
- Lower overall operational costs ..... 6
- Increased productivity ..... 6
- Better communication..... 6

Assumptions ..... 6



## **EXECUTIVE SUMMARY**

Telemetry IoT integration with ALMP provides end-to-end control and transparency for fuel consumption, fleet optimization, maintenance costs and safety.

This innovative fleet management solution optimizes driver and vehicle utilization through real-time data tracking, achieving increased productivity and cost reduction.

Key business goals as below:

- Expense & fuel management system
- off shift & On shift fleet tracking
- Driver & Vehicle wise fleet efficiency Monitoring
- Fleet wise Productivity (Utilization vs expenses)
- Complaint management system

Following is the projection for next year the spending, savings, and net cost savings:

## **PROJECT DESCRIPTION**

ALMP with an integration approach and fleet management will be helping in reduction of the run cost for drivers and vehicles with Americana Last Mile Platform product to achieve more efficient utilization of riders and vehicles to optimize journey and order delivery experience.

- Automated Driving Habit Assessment
  - Performance Report
  - Driver Training
  - Prevent unsafe driving.
  - Driver Management
- Crash Alert
  - Over Speed Alarm
  - Accident Alerts
  - SMS Alerts
- Optimize Fleet Delivery Routes with On-trip & off-trip Monitoring.
  - Fleet live tracking
  - Geo fencing
  - Route allocation

## **DELIVERY COST AND BUDGET**

ALMP platform integrated fleet management solution will initially require having smart devices enablement on vehicles available with the drivers to continuous share the data with internal Americana platforms.

Cloud Infra and Licenses Cost for IoT Integration with ALMP			
Environments	Items	Unit Price (\$ per month)	Expected Cost (\$ per year)
DEV	ALMP CLOUD DEV ENVIRONMENT (CAPEX)	\$ 146.44	\$ 1,757.32
QA	ALMP CLOUD QA ENVIRONMENT (CAPEX)	\$ 146.44	\$ 1,757.32
UAT	ALMP CLOUD UAT ENVIRONMENT (CAPEX)	\$ 292.89	\$ 3,514.63
PROD	ALMP CLOUD PROD ENVIRONMENT (OPEX)	\$ 2,928.86	\$ 35,146.32
DR	ALMP CLOUD DR ENVIRONMENT (OPEX)	\$ 146.44	\$ 1,757.32
Licenses & APIs	Google Maps, Monitoring, Atlassian, Confluent, API etc. (CAPEX+OPEX)	\$ 6,000.00	\$ 72,000.00

Estimated Total ALMP Infra Cost	\$ 57,966.45
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With all the spending below will be the cost of delivery of Fleet Management System with ALMP integration scope:

Estimated Total Cost of Americana Fleet Management	
Estimated Total ALMP Infra Cost (per year)	\$ 57,966.45
Estimated Total Rollout Cost	\$ 9,500.00
Estimated Total Development Team Cost	\$ 40,532.40

<b>Total Estimated Cost of Delivery (Without Device)</b>	<b>\$ 107,998.85</b>
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Note: Market-wise DoD will increase, and the cost of devices will be gradually reduced as this feature will be enabled with the DoD partners.

## SAVINGS AND FLEET COMPLIANCE

### Additional savings

In addition to above savings further the smart devices with GPS trackers will also help reduce Stolen Bikes with following:

Estimated Cost Savings on Vehicles Theft			
S. No.	Year of Theft	Total Theft	Estimated Vehicle Cost
1	FY-21	7	\$ 91,000.00
2	FY-22	4	\$ 52,000.00
3	FY-23	3	\$ 39,000.00
4	FY-24	5	\$ 60,666.67

<b>Total Estimated Cost of Theft Vehicles</b>	<b>\$ 242,666.67</b>
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### Beyond cost benefits



- IMPROVED SAFETY AND COMPLIANCE
- REDUCED FUEL COSTS
- LOWER OVERALL OPERATIONAL COSTS
- INCREASED PRODUCTIVITY
- BETTER COMMUNICATION

## ASSUMPTIONS

Below is the list of assumptions made during this draft version of documentation with basic costing, budgeting, and savings can be listed in below:

Assumption	Actions to validate Assumptions
Microsoft Azure Cloud BoQ for Production is considered as <b>\$11,715.44</b>	Validation can be done with Etisalat.
Monthly order volume considered from ALMP LAMDA DB with 18% order volume for 1click in October 2023	Can be validated with the monthly order volume available in LAMDA DB for Power BI reporting tables.
ALMP Dev, QA is considered 5%, UAT 5% and DR 5% of Production BoQ.	Below attached projected ALMP production BoQ component list shared via Etisalat.
For savings only considering 53% values to consider in estimates.	Trial case study with a few IoT devices are available above to validate.

## ALMP Cloud (BoQ) Considered for infrastructure calculation:

Microsoft Azure Estimate		
Americana   ALMP on Azure Cloud - BoQ		
Service type	Region	Estimated monthly cost (\$)
Virtual Machines	UAE North	1 F8 (8 vCPUs, 16 GB RAM) (1 year reserved), Linux, (Pay as you go); 1 managed disk – E4, 100 transaction units; inter Region transfer type, 5 GB outbound data transfer from UAE North to East Asia
Azure Kubernetes Service (AKS)	UAE North	4 D8 v3 (8 vCPUs, 32 GB RAM) (1 year reserved), Linux; 4 managed OS disks – E4, 0 clusters Premium Tier, 1 registries x 30 days, Geo Replication - 1 regions, 0 GB Extra Storage, Container Build - 1 CPUs x 1 Seconds - inter Region transfer type, 5 GB outbound data transfer from UAE North to East Asia
Azure Container Registry	UAE North	Kafka Component: 2 D4V2 (8 cores, 28 GB RAM) Head nodes x 730 Hours, 1 D4V2 (8 cores, 28 GB RAM) Region nodes x 730 Hours, 3 D4V2 (8 cores, 28 GB RAM) Zookeeper nodes x 730 Hours, 0 D4V2 (8 cores, 28 GB RAM) Edge nodes x 730 Hours, 0 Standard disks
Confluent Cluster	UAE North	Premium tier, 1 base unit x 730 Hours, 0 additional units
API Management	UAE North	Flexible Server Deployment, General Purpose Tier, 2 D8 v4 (8 vCores) (1 year reserved), 5 GB Storage, 0 GB Additional Backup storage - LRS redundancy, without High Availability
Azure Database for PostgreSQL	UAE North	1 Endpoints X 730 Hours, 100 GB Outbound data processed, 100 GB Inbound data processed
Azure Private Link	UAE North	Vault: 1 operations, 1 advanced operations, 1 renewals, 0 protected keys, 0 advanced protected keys; Managed HSM Pools: 0 Standard B1 HSM Pool(s) x 730 Hours
Key Vault	UAE North	Standard tier; 1 C0 instances, 730 Hours
Azure Cache for Redis	UAE North	Azure Policy guest configuration, 1 Servers
Azure Policy	UAE North	Block Blob Storage, General Purpose V2, LRS Redundancy, Hot Access Tier, 1 TB Capacity - Pay as you go, 10 x 10,000 Write operations, 10 x 10,000 List and Create Container Operations, 10 x 10,000 Read operations, 100,000 Archive High Priority Read, 1 x 10,000 Other operations. 1,000 GB Data Retrieval, 1,000 GB Archive High Priority Retrieval, 1,000 GB Data Write
Storage Accounts	UAE North	Log analytics: 0.2 GB Daily logs ingested; Application Insights: 0.2 GB Daily logs ingested, 3 months Data retention, 0 Multi-step Web Tests; 0 resources monitored X 1 metric time-series monitored per resource, 0 Log Alerts at 5 Minutes Frequency, 0 Additional events, 0 Additional emails, 0 Additional push notifications, 0 Additional web hooks (in millions)
Azure Monitor	UAE North	Standard Tier: 5 Rules, 1,000 GB Data Processed
Load Balancer	UAE North	UAE North (Virtual Network 1): 100 GB Outbound Data Transfer; UAE North (Virtual Network 2): 100 GB Outbound Data Transfer
Virtual Network	UAE North	Web Application Firewall V2 tier, 730 Fixed gateway Hours, 5 GB Data transfer
Application Gateway	UAE North	0 Dynamic IP Addresses, 2 Static IP Addresses
IP Addresses	UAE North	VPN Gateways, VpnGw2 tier, 730 gateway hour(s), 21 S2S tunnels, 128 P2S tunnels, 0 GB, VPN VPN gateway type
VPN Gateway	UAE North	Internet egress, 500 GB outbound data transfer from UAE North routed via Public Internet
Bandwidth	UAE North	0 Customer instances, 1 Azure instances
Azure Site Recovery	UAE North	Standard tier, 1 app, 0 GB of Bandwidth overages
Static Web Apps	Central	0 local and 0 toll-free United States (+1) phone number(s); 1 reoccurring call(s) (30 minutes X 0 call(s) per month X 0 participants per call), 10 chat users X 1000 message(s) sent per chat user, 0 connections X 0 minutes per connection X 1 Mbps upload speed
Azure Communication Services	East US	
Support		Support
		Licensing Program
		Microsoft Online Services Agreement
		<b>Total</b>



## Appendix A: Business Case - Approval

The undersigned acknowledge they have reviewed the ALMP Fleet Management **Business Case** and agree with the approach it presents. Changes to this **Business Case** will be coordinated with and approved by the undersigned or their designated representatives.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Print Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Role: \_\_\_\_\_

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