Cost Benefit Analysis

The primary development that will be used to market the services provided by Cruise Control will begin with a new web development to be defined. Below is a list of the following attributes to be considered.

Impacts	Benefits	Costs
- Direct, Short Term	- Automated Process - Feasible User Connectivity	- Cost of Web Development plus the Cost of the Software Application
- Indirect, Long Term	- Automated Process - Client/Customer Support Access	- Time to Manage Customer Related Inquiries
- Branding/Marketing	- Scalability - Improved Brand Equity	
- Company Information	- Immediate Access - Reliability - Legal Representation	- Cost of Web Development plus - Cost of Service Agreement for Hosts and Customers
- Software Accessibility	- Reliable Service	- Cost of Web Development
- Cost of Development		- Web Contractor – 45/hr, Max Payment - $1500
- Website Maintenance and Cost	- Increase Online Performance	- TBD
- Time	- Reduce Administration Time	

The second development will describe a list of attributes provided by the micro-mobility management services. Furthermore, the list will describe the impacts that the software management platform created by Joyride will have on the business.

Impacts	Benefits	Costs
- Cost of Services		- $250/Monthly Subscription
- Cost of Integrating Services	- Reduced Administration Time - Scalability	- TBD
- White-Labeling Feature	- Extensive Branding and Marketing	- Included in Cost of Services
- Analytics	- Extensive Data and Access to Performance of Services	- Included in Cost of Services
- Custom Pricing Plan	- Increase Revenue - Subjectable Pricing	- Included in Cost of Services
- Platform Compatibility	- Access to Multiple Types of Hardware	- Included in Cost of Services
- Host	- Minimal Host Requirements	- Included in Cost of Services

The final list does not constitute as any form of a development but will include the incurred cost of the Electric Scooters to be serviced for calculation purposes at different unit variations.

Units	Benefits	Costs
2-4 Electric Scoters	$80/3 Rental Days	$800 - $1600
5-10 Electric Scooters	$80/3 Rental Days	2000 - $4000
11- 25 Electric Scooters	$80/3 Rental Days	4400 - $10000

One-time Cost of Change

Total Assessment for Web development System		
	Benefits	Costs
Total	-	$1800
Total Assessment for Software Management System		
	Benefits	Costs

Total	-	250/Monthly
Total Assessment for All Systems		
	Benefits	Costs
Total	-	$5000

Measurement Metrics

The cost-benefit analysis will be measured against 4 primary financial metrics including the income generated, the second being the return on investment (ROI) in 1 and 2 years based on the company renting up to 4 units and up to 10 units, the third measurement will calculate the internal rate of return (IRR) and finally the payback period (PP.) Presented below will be a set of charts briefly explaining the total cost and potential benefits that will be used to evaluate the designated systems in the project

The evaluation will be set given specific ranges for parameters to be considered. The information provided is based off of data provided by external sources and the following projections will conclude results based on that. Additional information provided below will be the rate at which the company is willing to provide for such real-estate to generate revenue.

Number of Units per Location	Each host will be permitted to 2 units and up to 4 units per location. This particular measurement will be used as a multiplier in determining potential revenue from each unit.
Average Number of Nights per Booking	According to Airbnb, the average number of nights per booking is around 4.3. Hence the pricing structure for each unit of service has been set to $80 for 3 days.
Average Number of Booking per Month	According to Airbnb, the average number of bookings received per host in a month is around 75%. Given that data, lets conclude that there are 22.5 days out of the month that are booked. Then, lets divide that number by the average number of nights per booking and we get 5.2. In this case, well consider just whole numbers and say the average number of booking per month is 5.
Accounts Payable to Host	Currently, the rate at which each host will receive a payment for storing each unit is set at %8 of all revenue generated by each unit at each location.

Net Impact to Future Operations

Given the average number of bookings per month is around 5, the projections have started at that value, Given the nature of the business, the following values below 5 will be used to evaluate the operations in case of a lack of performance of such services.

Income Generated			
Units Booked/Booking	Average Bookings/Month	Price	Projected Revenue
4	5	$80	$1600
4	4	$80	$1280
4	3	$80	$960
2	5	$80	$800
2	4	$80	$640
2	3	$80	$480

The following set of graphs will depict the projected amounts for the following groupings: 4 units booked at 5 bookings a month, 4 units booked at 3 bookings a month, 2 units booked at 5 bookings a month, and 2 units booked at 3 bookings a month. Given the results the following estimation(s) can be made based on the average metrics in the industry and the sub-par standard provided.

The chart below will compute the ROI based on 4 units booked and 5 locations booked per month. (A)

Return on Investment (ROI)

Month	Projected Revenue	Unit Cost	Cost of Software Services	Cost of System	Accounts Payable to Host (8%)	Total
1	$1260	($1600)	($250)	($1800)	($100)	($2490)
2	$1260	($2490)	($250)	-	($100)	($1580)
3	$1260	($1580)	($250)	-	($100)	($670)
4	$1260	($670)	($250)	-	($100)	$240
5	$1260	$240	($250)	-	($100)	$1150
6	$1260	$1150	($250)	-	($100)	$2060
7	$1260	$2060	($250)	-	($100)	$2970
8	$1260	$2970	($250)	-	($100)	$3880
9	$1260	$3880	($250)	-	($100)	$4790
10	$1260	$4790	($250)	-	($100)	$5700
11	$1260	$5700	($250)	-	($100)	$6610
12	$1260	$6610	($250)	-	($100)	$7520

The chart below will compute the ROI based on 4 units booked and 3 locations booked per month. (B)

Return on Investment (ROI), Payback Period (PP), Initial Rate of Return (IRR)						
Month	Projected Revenue	Unit Cost	Cost of Software Services	Cost of System	Accounts Payable to Host (8%)	Total
1	$960	($1600)	($250)	($1800)	($76)	($2766)
2	$960	($2766)	($250)	-	($76)	($2132)
3	$960	($2132)	($250)	-	($76)	($1498)
4	$960	($1498)	($250)	-	($76)	($864)
5	$960	($864)	($250)	-	($76)	($230)
6	$960	($230)	($250)	-	($76)	$404
7	$960	$404	($250)	-	($76)	$1038
8	$960	$1038	($250)	-	($76)	$1672
9	$960	$1672	($250)	-	($76)	$2306
10	$960	$2306	($250)	-	($76)	$2940
11	$960	$2940	($250)	-	($76)	$3574
12	$960	$3574	($250)	-	($76)	$4208

The chart below will compute the ROI based on 2 units booked and 5 locations booked per month. (C)

Return on Investment (ROI), Payback Period (PP), Initial Rate of Return (IRR)						
Month	Projected Revenue	Unit Cost	Cost of Software Services	Cost of System	Accounts Payable to Host (8%)	Total470
1	$800	($1600)	($250)	($1800)	($80)	($2930)
2	$800	($2930)	($250)	-	($80)	($2460)
3	$800	($2430)	($250)	-	($80)	($1990)
4	$800	($1990)	($250)	-	($80)	($1520)
5	$800	($1520)	($250)	-	($80)	($1050)
6	$800	($1050)	($250)	-	($80)	($580)
7	$800	($580)	($250)	-	($80)	($110)
8	$800	($110)	($250)	-	($80)	$360
9	$800	$360	($250)	-	($80)	$830
10	$800	$830	($250)	-	($80)	$1300
11	$800	$1300	($250)	-	($80)	$1770
12	$800	$1770	($250)	-	($80)	$2240

The chart below will compute the ROI based on 2 units booked and 3 locations booked per month. (D)

Return on Investment (ROI), Payback Period (PP), Initial Rate of Return (IRR)

Month	Projected Revenue	Unit Cost	Cost of Software Services	Cost of System	Accounts Payable to Host (8%)	Total
1	$480	($1600)	($250)	($1800)	($50)	($3220)
2	$480	($3220)	($250)	-	($50)	($3040)
3	$480	($3040)	($250)	-	($50)	($2860)
4	$480	($2860)	($250)	-	($50)	($2680)
5	$480	($2680)	($250)	-	($50)	($2500)
6	$480	($2500)	($250)	-	($50)	($2320)
7	$480	($2320)	($250)	-	($50)	($2140)
8	$480	($2140)	($250)	-	($50)	($1960)
9	$480	($1960)	($250)	-	($50)	($1780)
10	$480	($1780)	($250)	-	($50)	($1600)
11	$480	($1600)	($250)	-	($50)	($1420)
12	$480	($1420)	($250)	-	($50)	($1240)
13	$480	($1240)	($250)	-	($50)	($1060)
14	$480	($1060)	($250)	-	($50)	($880)
15	$480	($880)	($250)	-	($50)	($700)
16	$480	($700)	($250)	-	($50)	($520)
17	$480	($520)	($250)	-	($50)	($340)
18	$480	($340)	($250)	-	($50)	($160)
19	$480	($160)	($250)	-	($50)	$20
20	$480	$20	($250)	-	($50)	$200
21	$480	$200	($250)	-	($50)	$380
22	$480	$380	($250)	-	($50)	$560
23	$480	$560	($250)	-	($50)	$740
24	$480	$740	($250)	-	($50)	$920

The chart below will calculate the Initial Rate of Return and list the Payback Period noted by the following charts above.

	Present Value	Future Value	Investment Term	Initial Rate of Return	Payback Period (Months)
A	$5000	$12520	12 Months	150.4%	4
B	$5000	$9208	12 Months	84.2%	6
C	$5000	$7240	12 Months	44.8%	8
D	$5000	$5920	24 Months	8.8%	19

Overall Cost/Benefit of Proposal

Based on the projections described above given the average number of bookings a host has every month and the company operating with an initial 4 units. The overall rate of return is very beneficial. Leaving the operation with a short period of time before the initial investment in the new system becomes profitable.

The current systems in place are becoming more cost and time effective every single day, The amount of time required to complete the process is costing more money and cutting into profit resulting in pushing back the initial payback period well into the future. Given the nature of the future system, the new set of processes can be concluded as a beneficial step to achieving profitability in a timely manner.

Estimating two categories:

- One time cost of change
    - Build Solution
    - Implement Solution
- Net impact to ongoing operations
    - Cost/Benefit of Gap from AS-IS to TO-BE

Tangible cost: Host cost, materials cost, overhead,

These metrics include both management and financial metrics. Productivity, schedule variance, return on investment (ROI), and payback period are a few of these metrics.