- The application shall be compatible with the iOS and Android mobile platforms.
- ② The application shall support a web interface for mobile devices on other platforms.

- If it is a users first-time opening the application, the application shall prompt the user to enter an email address, password, and credit card information.
- ② If a returning user opens the application, it shall prompt the user to enter their log-in information.

- If the application loses connectivity, the application shall display an error message.
- ② The application shall retrieve the users location at intervals of 120 ± 10 seconds.
- If the user is within 150 feet of a train-stops geo-location coordinates, the train-stops name, ticket price, and incoming train information shall be displayed on the user interface.
- If train stop information is being displayed on the applications user interface, the application shall update the train stops incoming train information at intervals of 30 ± 5 seconds.

- If the user selects to purchase a ticket, their stored credit card will be charged for the price of the train stops ticket.
- ② If the user selects to use their ticket, the application shall signal the gate up to a maximum of 3 attempts at 20 \pm 5 second intervals to open.
- The application shall store unused virtual tickets for at least 1 year.
- The application shall store used virtual tickets for at least 30 days.
- The application shall allow the user to edit payment information.

LOS Requirements	Desired Level	Accepted Level
LOS-1: Concurrent Users	150000	75000
LOS-2: Start-up and user loca-	7 s	15 s
tion time		
LOS-3: Ticket Purchase Trans-	5 s	20 s
action Time		
LOS-4: Update Account Infor-	10 s	30 s
mation Time		

LOS Requirements	Desired Level	Accepted Level
LOS-5: Tickets stored per User	1500	500
LOS-6: % first-time users able	80	75
to purchase ticket without out-		
side help		
LOS-7: % first-time users able	85	80
to use ticket without outside		
help		
LOS-8: % users that ride metro	90	80
at least once per week that		
would rate ease of use at 3 out		
of 5 or higher		

LOS Requirements	Desired Level	Accepted Level
LOS-9: Average Time for User	45 s	60 s
to Create an Account		
LOS-10: Failed Ticket Pur-	0.25	1
chases per 1000		
LOS-11: Failed Ticket Uses per	0.25	1
1000		
LOS-12: Hours per day that	20	19.5
app shall purchase tickets		

Capability Requirements Level of Service Requirements

LOS Requirements	Desired Level	Accepted Level
LOS-13: Hours per day that	20	19.5
app shall allow use of tickets		
LOS-14: # iOS generations	3	2
app shall support		
LOS-15: # Android genera-	3	2
tions app shall support		
LOS-16: $\#$ versions of app that	3	2
Metro system shall support		