

AC Transit Enterprise Database & Applications

Manjit K. Sookh

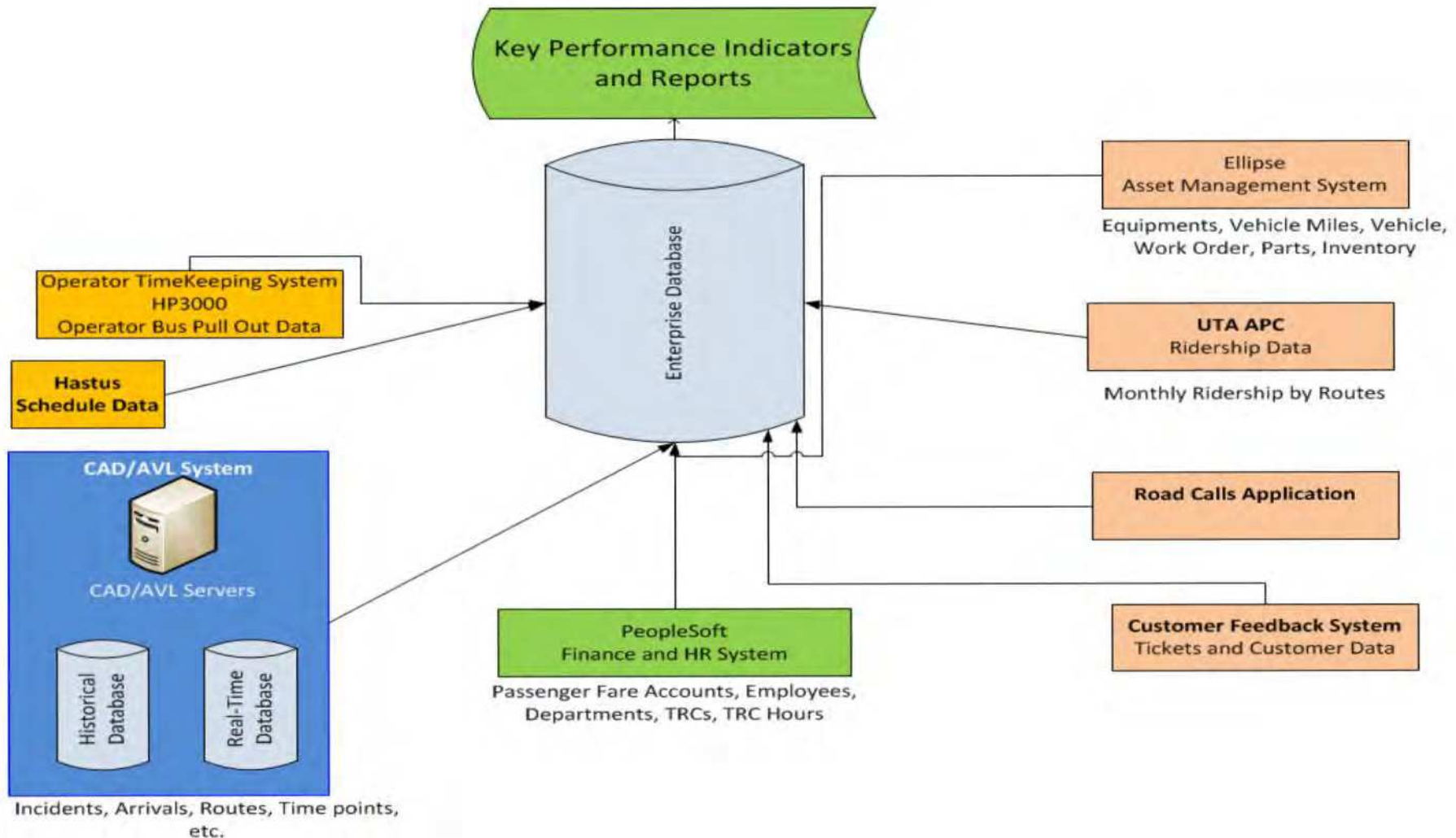
Alameda – Contra Costa Transit District (AC Transit)

Director of Systems & Software Development

Oakland, California



AC Transit Systems and Enterprise Database



Decision Makers are...

Managing with KPI's

Frequency: Daily, Monthly, Quarterly, Yearly



Critical Key Performance Indicators and Data Source

#	KPI	Data Source
1	On-Time Performance	CADAVL (Arrivals)
2	Operator Log-On Rate	OTS (Bus Pull Outs, Operator Logons)
3	Maintenance Road Calls	Ellipse (Vehicle Miles) Road Calls Application (Road Calls)
4	Service Operated Percentage	CADAVL (# Incidents, # Trips Scheduled)
5	Accident Rates	Ellipse (Vehicle Miles) People Soft (# Accidents)
6	Maintenance Manpower Unavailability	PeopleSoft (TRC, Department, Attendance)
7	Operator Unavailability	PeopleSoft (TRC, Operator Attendance)
8	Ridership	APC (Average Passengers)
9	Service Efficiency Standards	PeopleSoft (Passenger Fare Revenues)
10	Customer Complaints	CusRel Application (# Complaints), APC (Ridership Boarding's)
11	Fare Revenue	PeopleSoft FIN(Accounts)

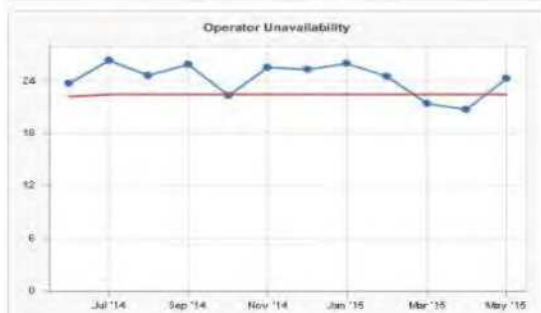
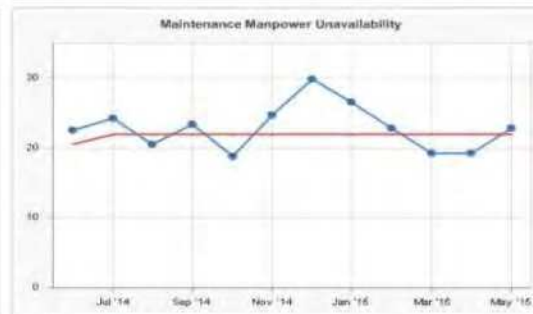
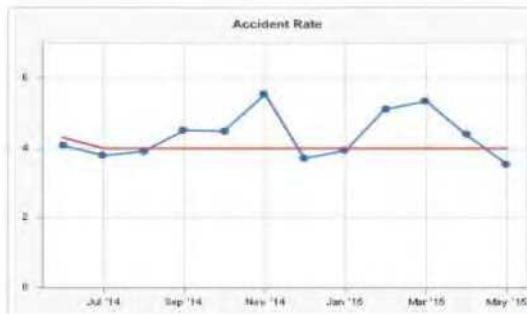
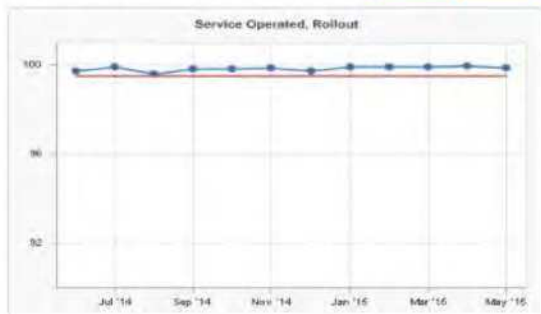
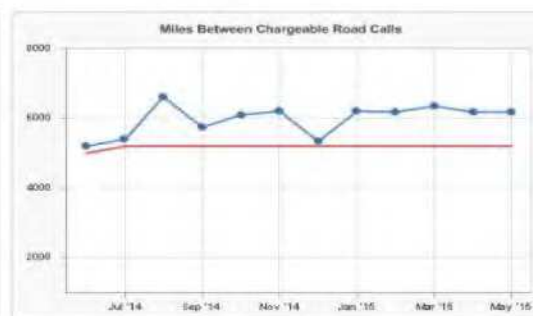
Dashboard



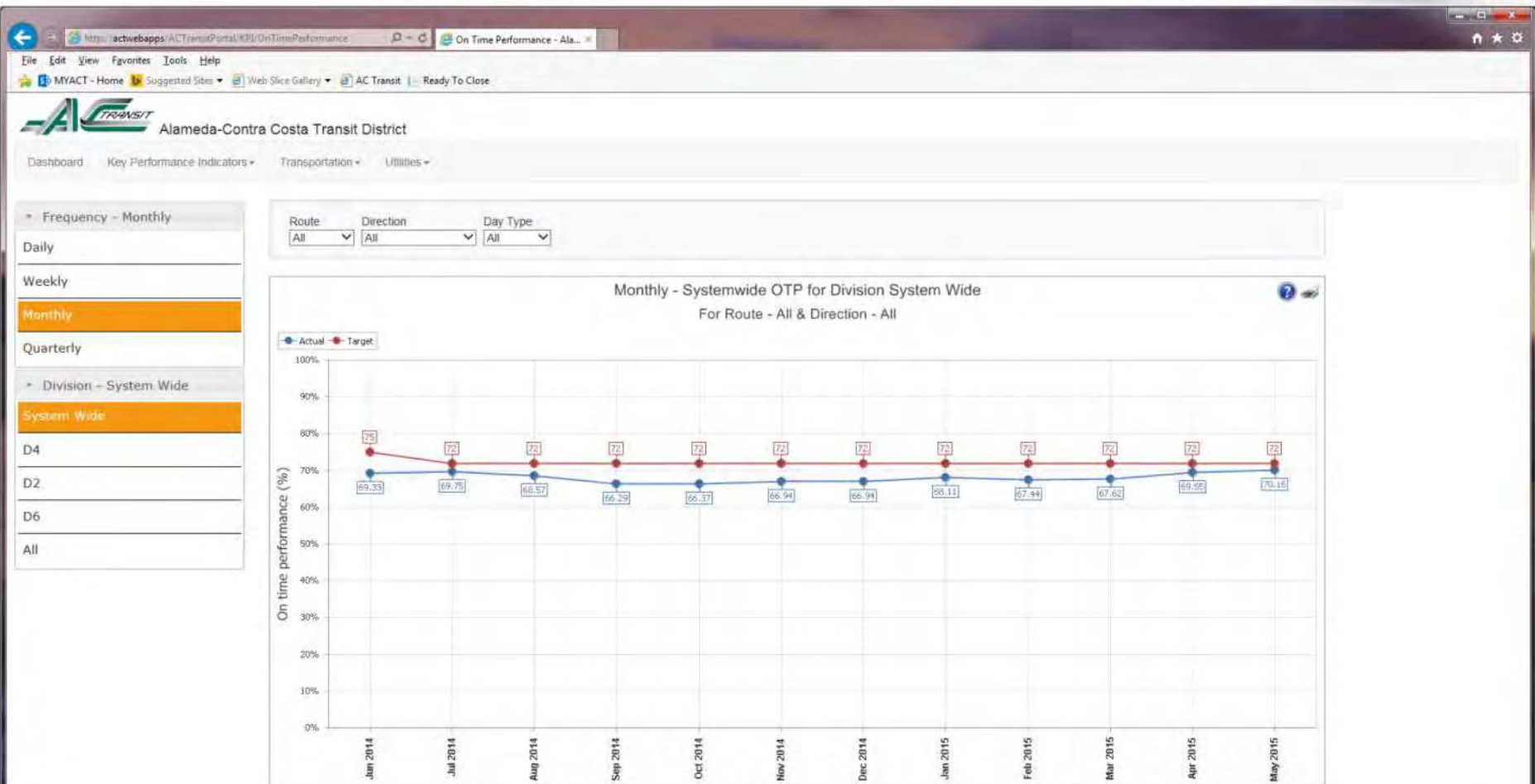
Alameda-Contra Costa Transit District

Dashboard Key Performance Indicators - Transportation - Utilities -

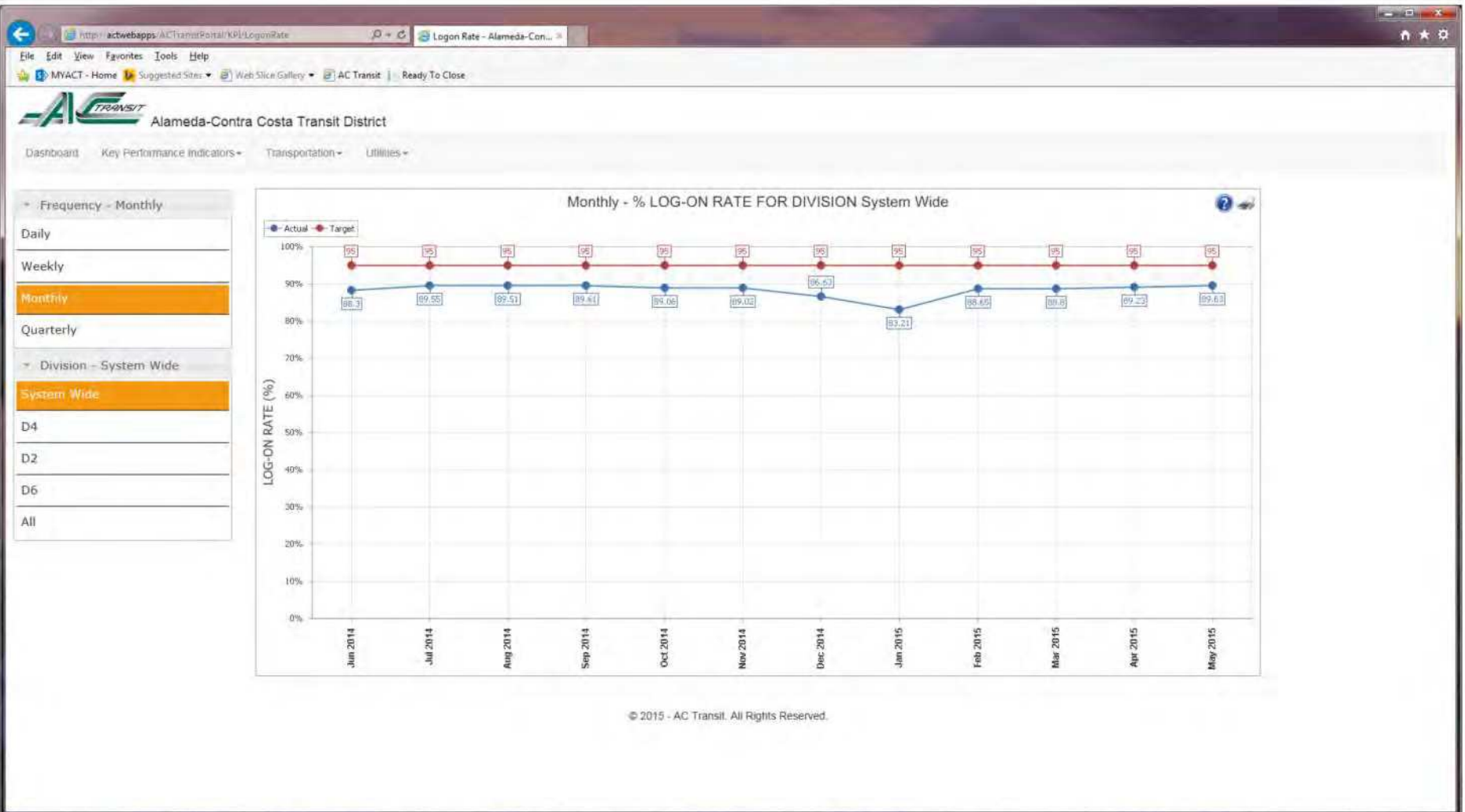
KPI	Target	May '15	Jan - Mar '15
On Time Performance	72%	70.15%	67.72%
Miles Between Chargeable Road Calls	5200	5174.43	5253.46
Service Operated, Rollout	99.5%	99.87%	99.92%
Accident Rate	4	3.54	4.8
Maintenance Manpower Unavailability	22%	22.95%	22.95%
Operator Unavailability	22.5%	24.28%	23.95%
Logon Rate	95%	99.62%	96.89%
Ridership, Average Daily Passengers	N/A	---	---
Service Efficiency Standards Pay Hours to Platform Hours	N/A	---	---
Fare Revenues	N/A	---	---
Customer Complaints Complaints Per 100K Boardings	15	0	15.26



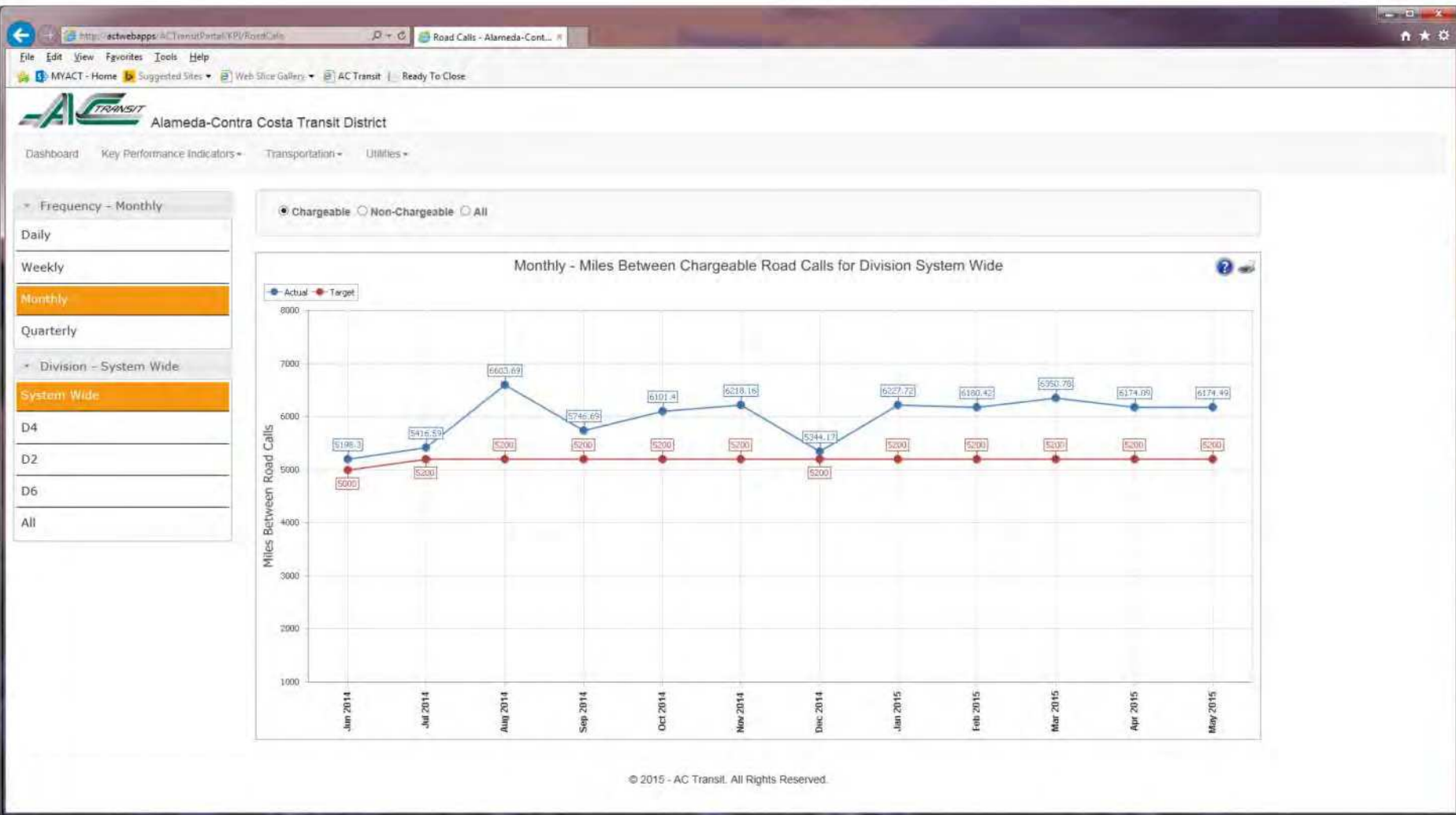
On Time Performance KPI



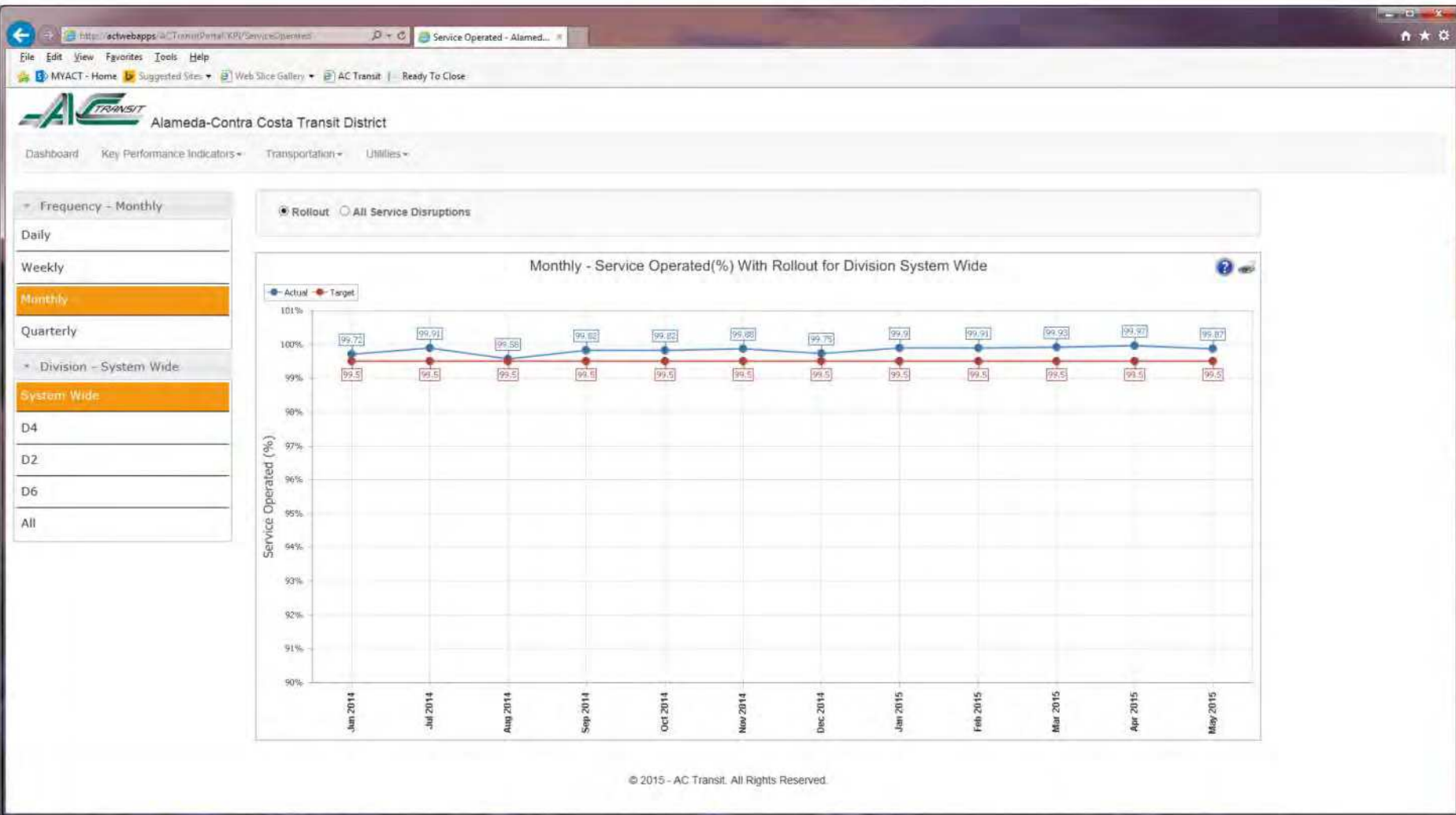
Logon Rate KPI



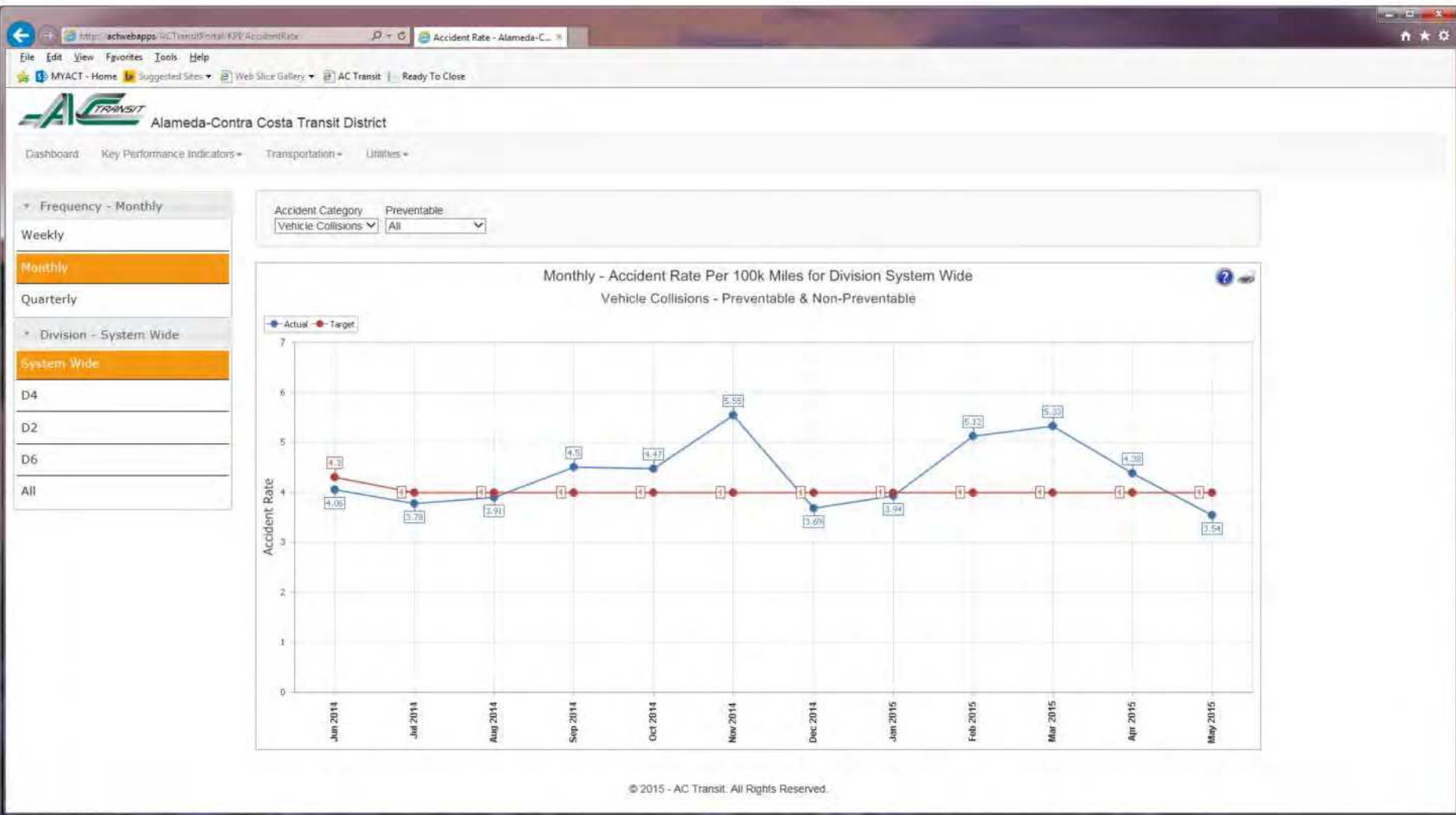
Miles Between Chargeable Road Calls KPI



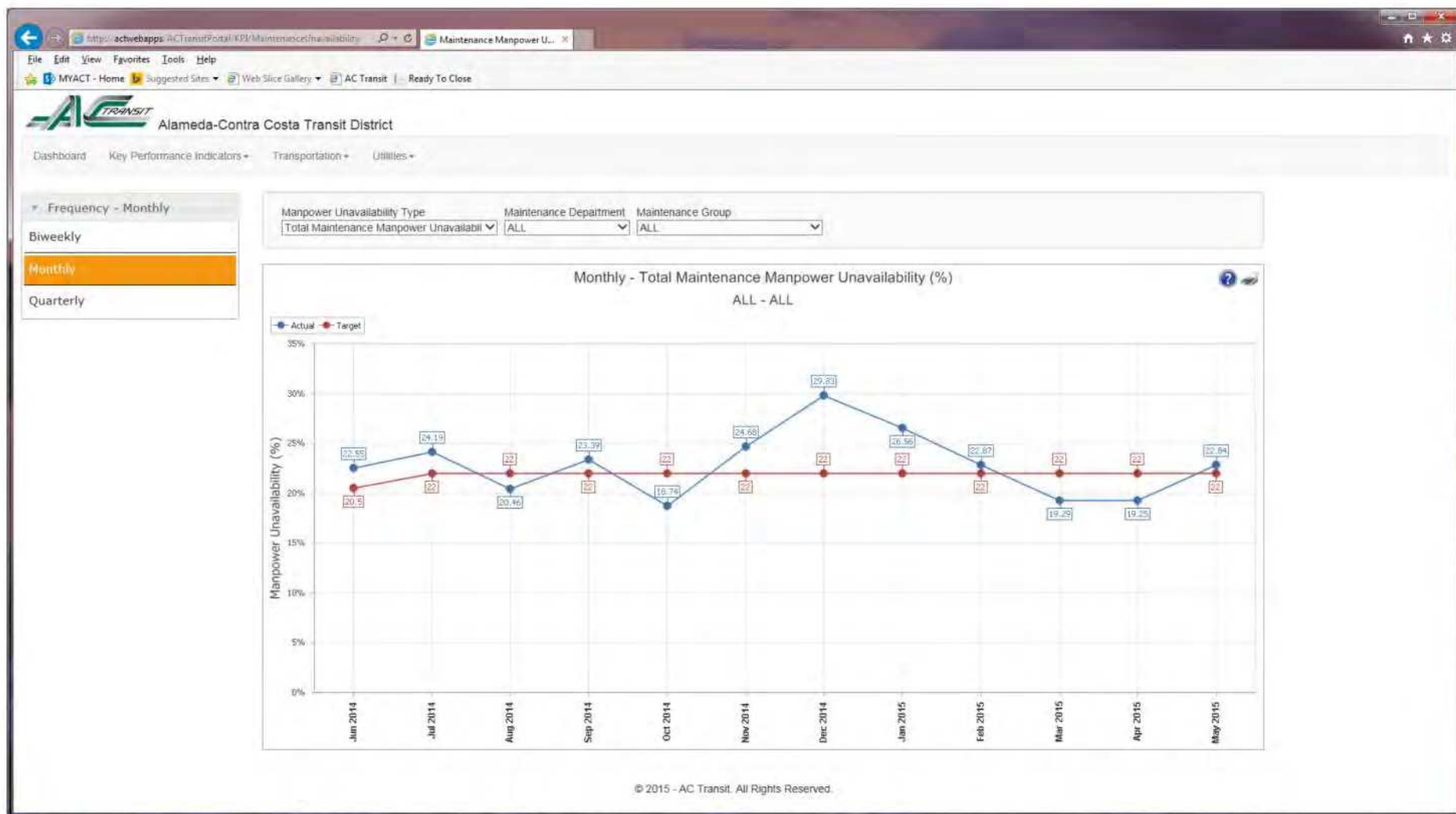
Service Operated KPI



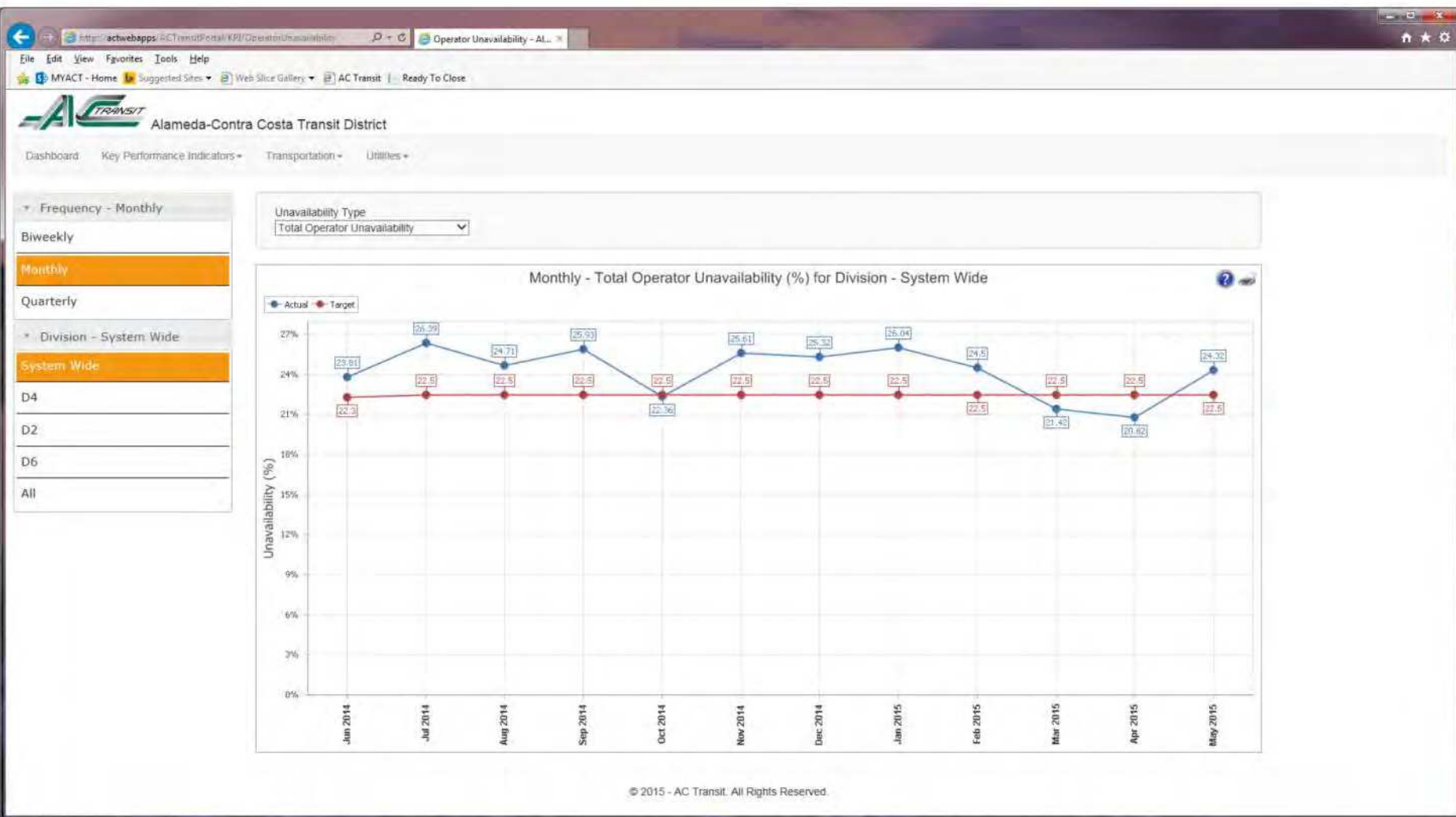
Accident Rate Per 100k Miles KPI



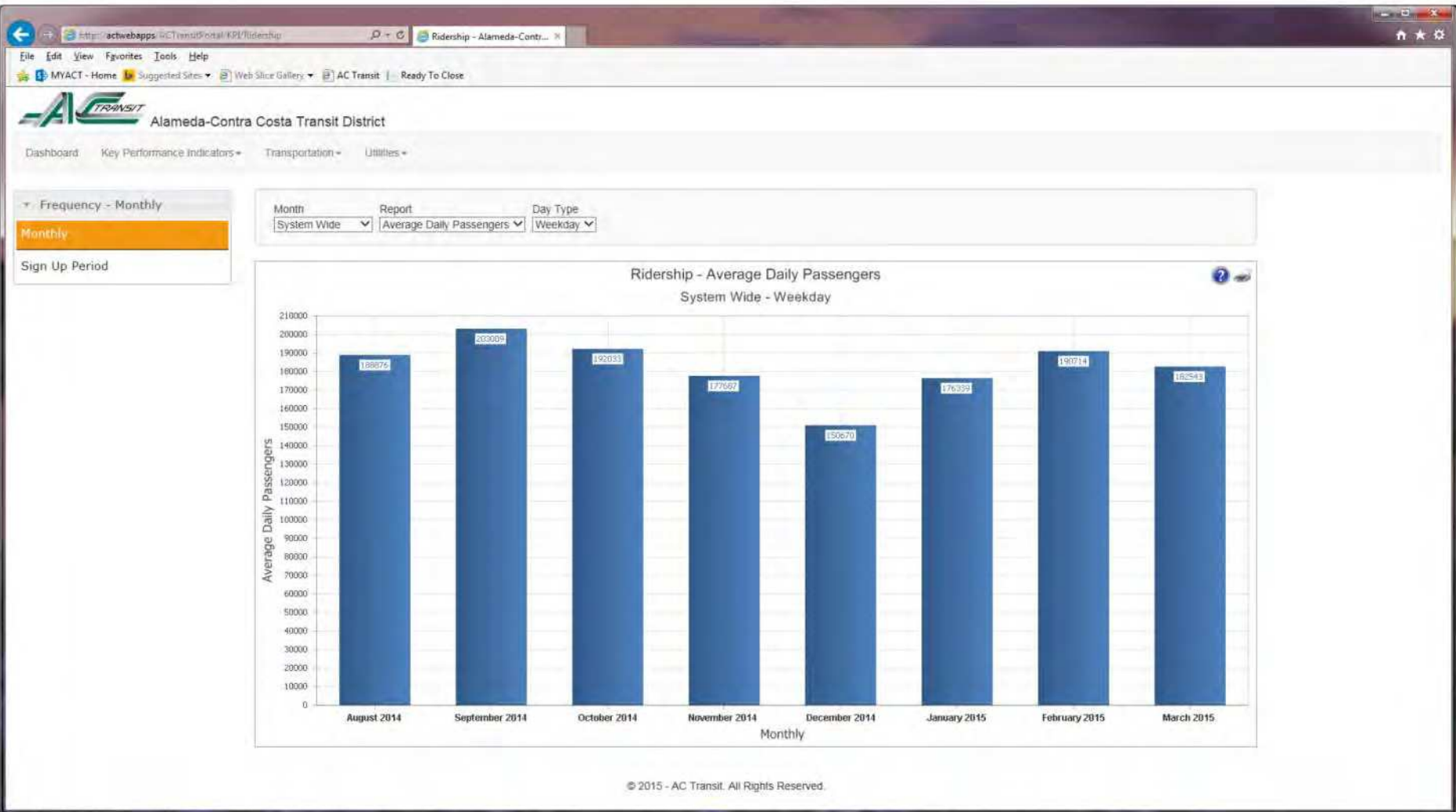
Total Maintenance Manpower Unavailability KPI



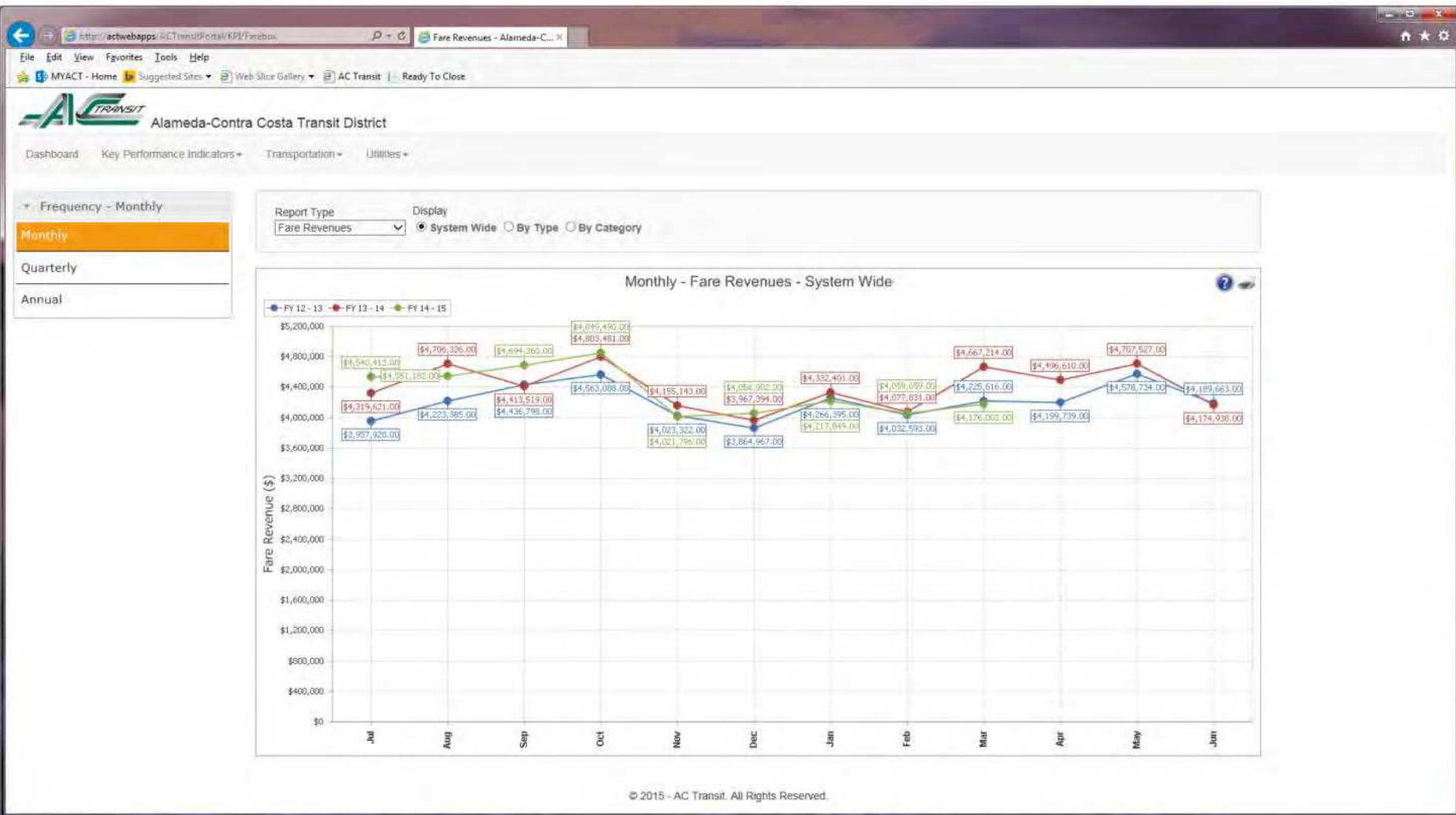
Total Operator Unavailability KPI



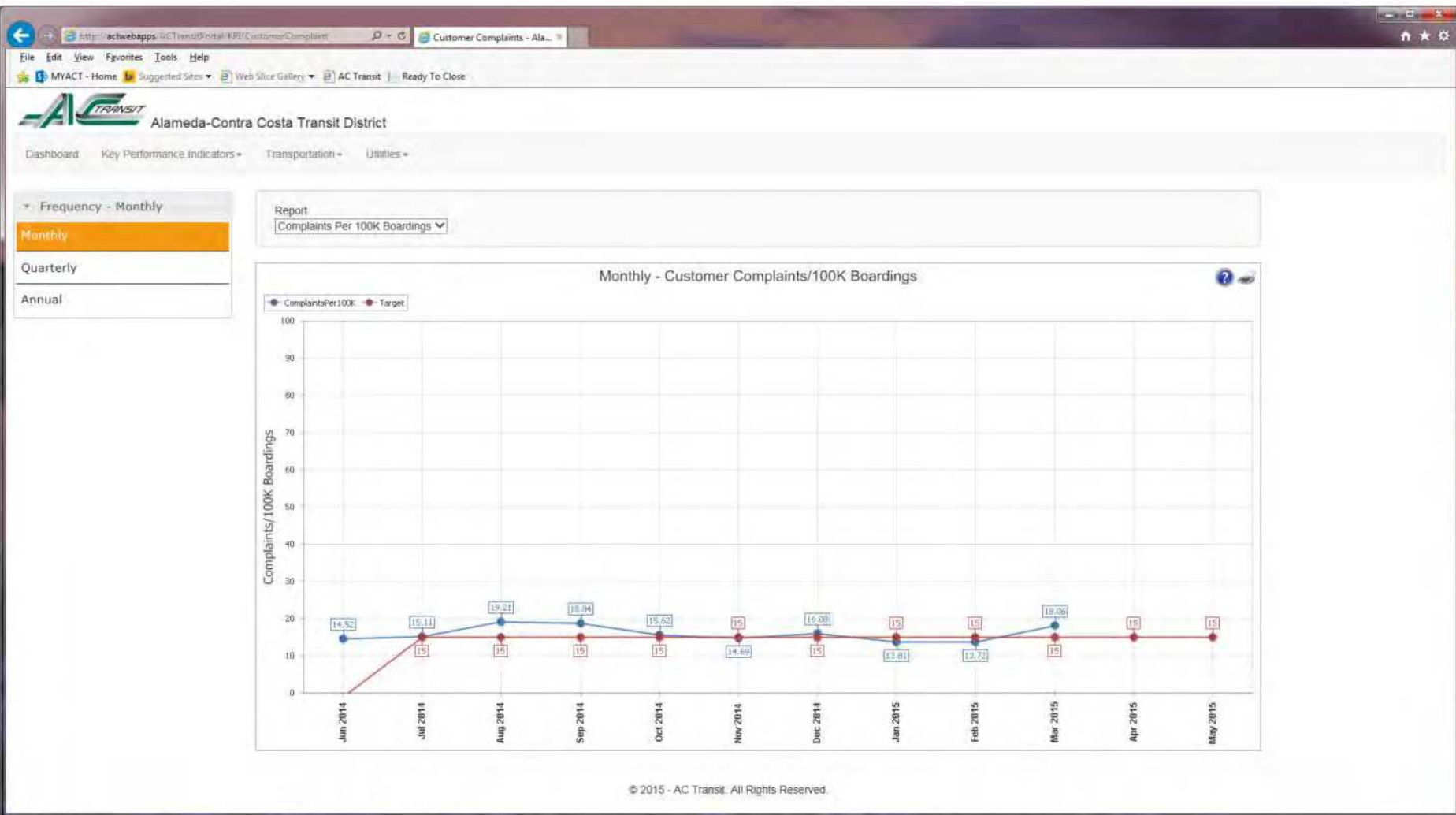
Average Daily Passengers Ridership KPI



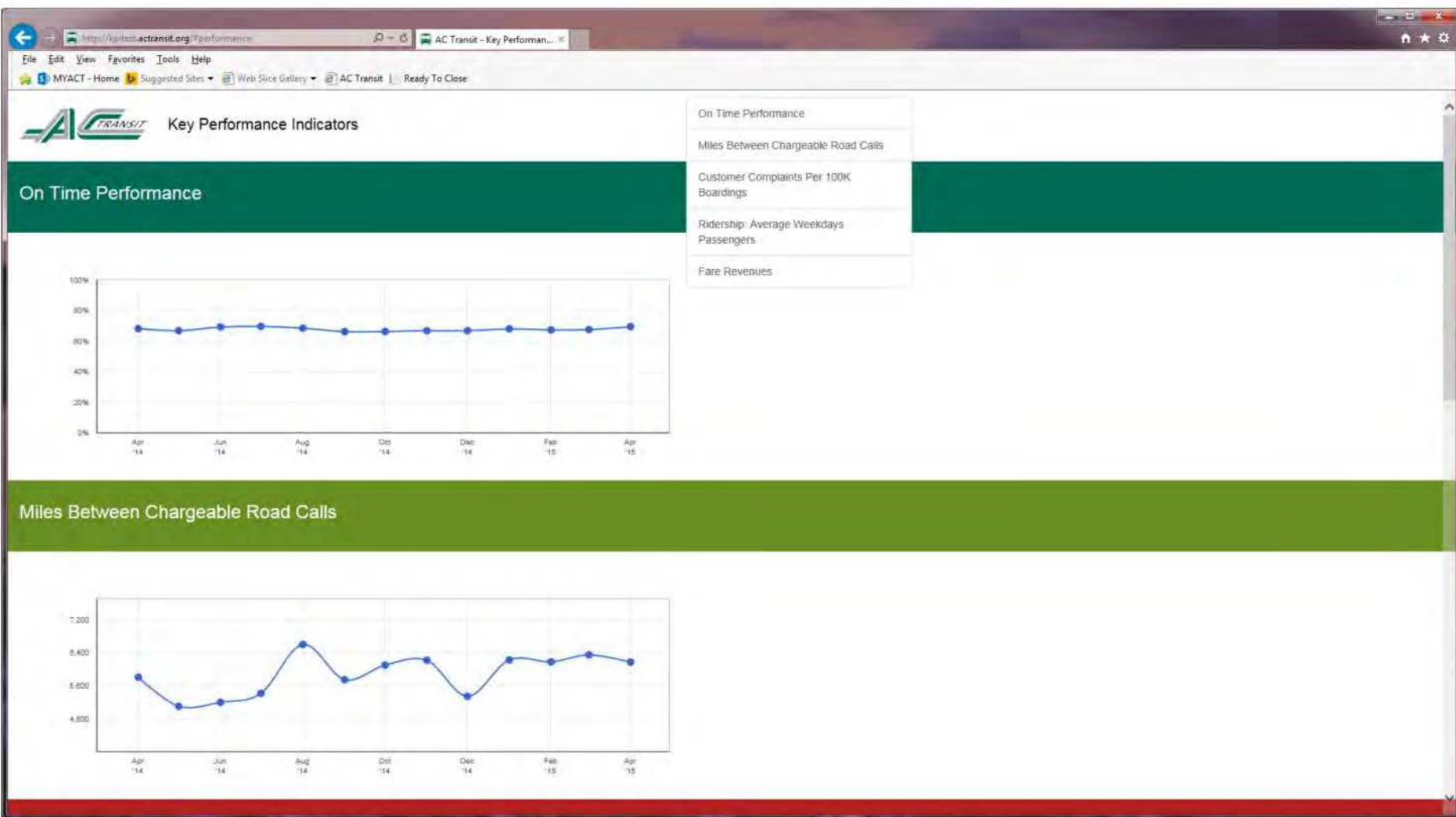
Fare Revenues KPI

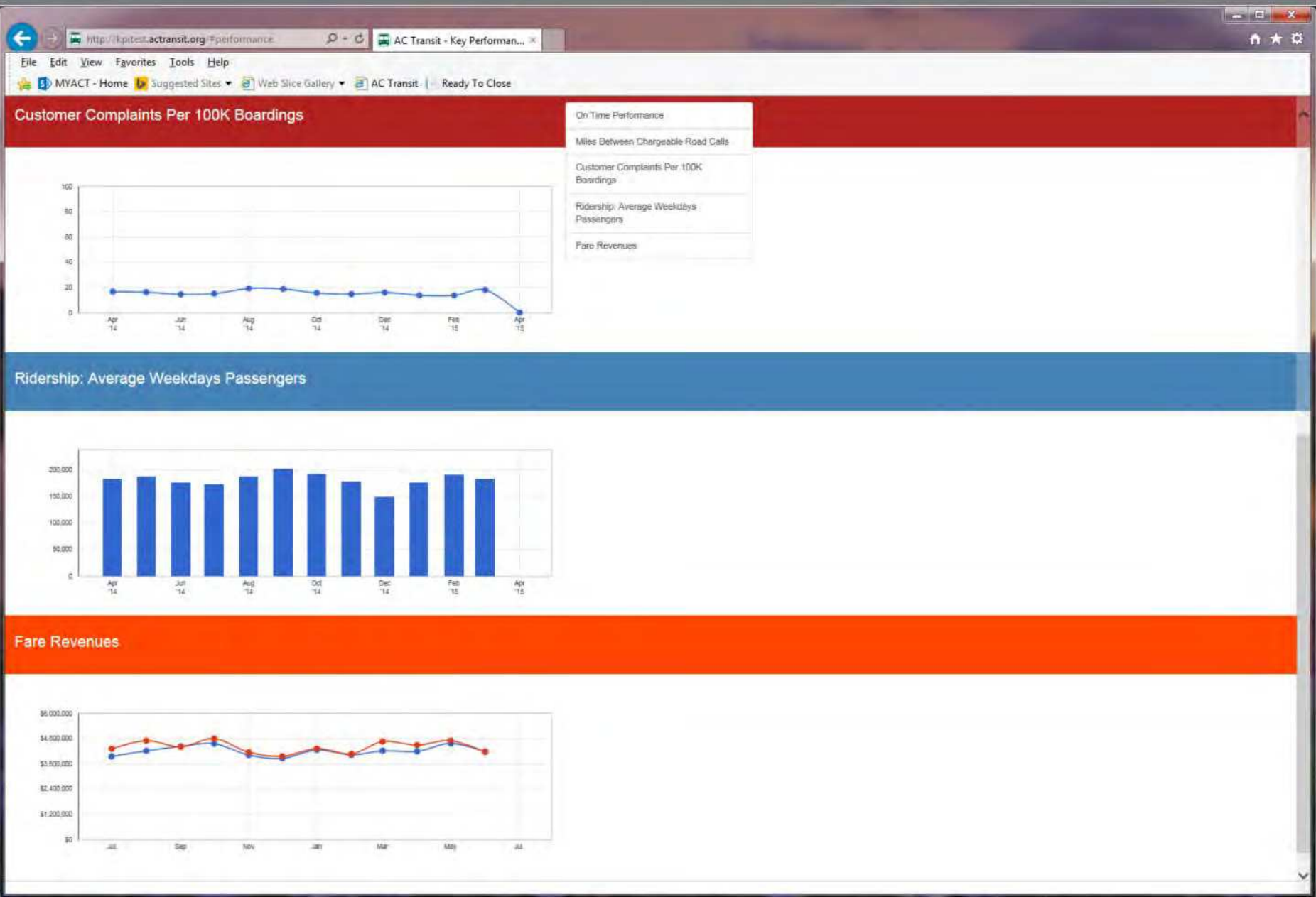


Customer Complaints/100K Boarding KPI

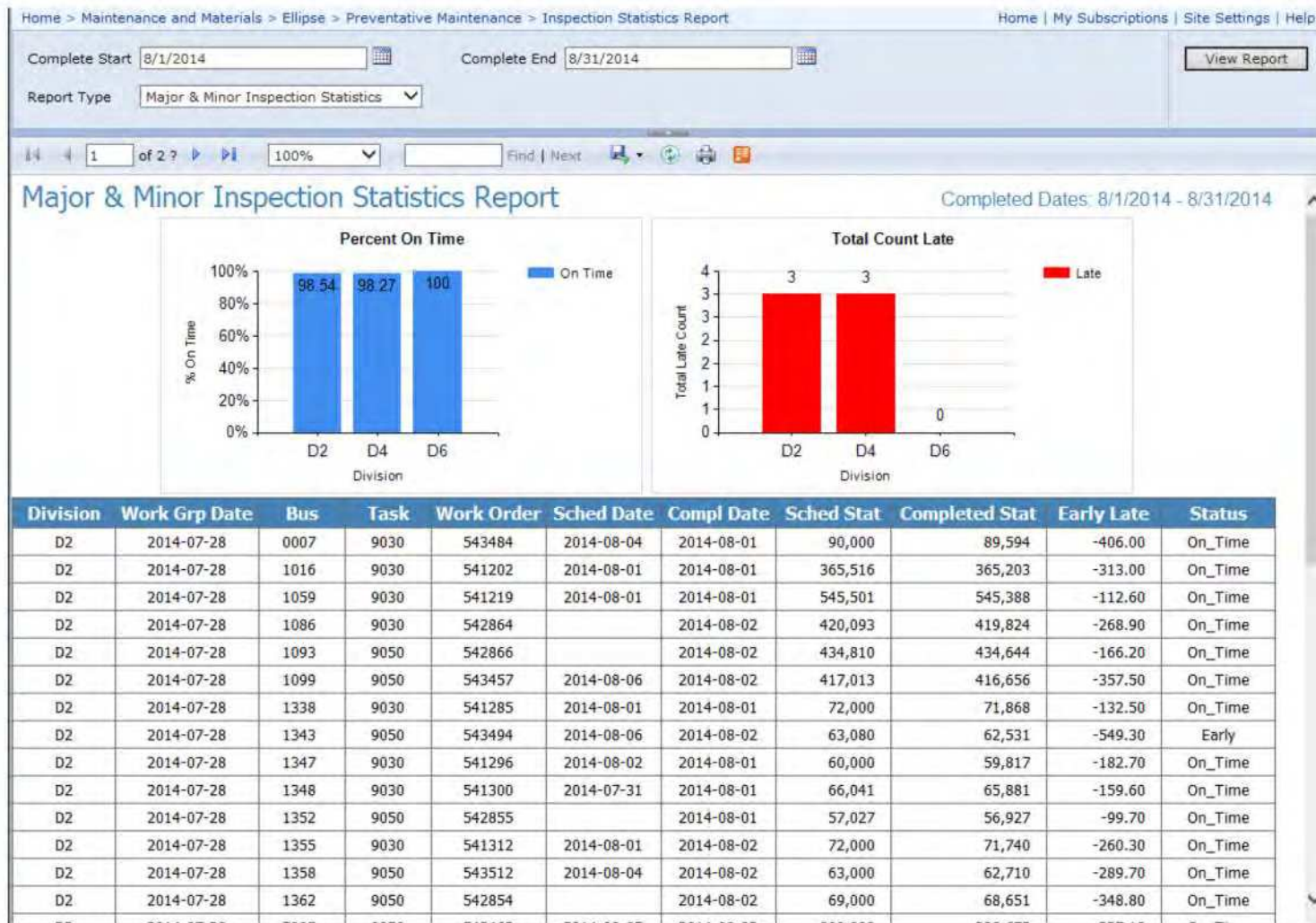


Public Facing KPI





Reporting Tool: SQL Reporting Services



Reporting Tool: Email Notification from SQL Reporting Services

Transbay Dispatch Concerns

Weekday Schedule 9/26/2014

Evaluating Hastus blocks, OTS bus pull outs and Ellipse vehicles

9.48 % Overall Vehicle Dispatch Concerns

3.45 % Incorrect Vehicle

6.03 % Overcapacity

Div	Block	Route All	Hastus Sched Start	Hastus Sched End	Hastus Vehicle Type	Dispatch Vehicle	Veh Id	Dispatch Start	Dispatch End	Concerns
D2	3 of 37	8.11 % Overall Concerns				8.11 % Incorrect Vehicle		0 % Overcapacity		
	72015	FS/72/72M	07:19:00	20:40:00	TB40	Bus: Gillig 2014 1400 Series	1467	07:19:00	12:12:00	Incorrect Veh
	120006	G	07:38:00	09:13:00	MCI	BUS: GILLIG,2014	6152	07:38:00	09:13:00	Incorrect Veh
	110005	J	07:33:00	09:48:00	MCI	BUS: GILLIG,2014	6151	07:33:00	09:48:00	Incorrect Veh
D4	7 of 62	11.29 % Overall Concerns				1.61 % Incorrect Vehicle		9.68 % Overcapacity		
	102002	B	06:22:00	08:56:00	ST40	BUS: GILLIG,2014	6134	06:22:00	08:56:00	Overcapacity
	103001	C	05:14:00	09:06:00	ST40	BUS: GILLIG,2014	6129	05:14:00	09:06:00	Overcapacity
	103003	658/C	06:33:00	09:23:00	ST40	BUS: GILLIG,2014	6114	06:33:00	09:23:00	Overcapacity
	124008	NL	05:24:00	09:54:00	ST40	BUS: 2002 MCI D4500-55645C	6077	05:24:00	09:54:00	Overcapacity
	129015	NX	06:50:00	08:17:00	ST40	BUS: GILLIG,2014	6127	06:50:00	08:17:00	Overcapacity
	129017	638/NX	07:00:00	09:11:00	MCI	BUS: GILLIG,2014	6136	07:00:00	09:11:00	Incorrect Veh
	129019	NX3	07:34:00	09:20:00	ST40	BUS: GILLIG,2014	6126	07:34:00	09:20:00	Overcapacity
D6	1 of 17	5.88 % Overall Concerns				0 % Incorrect Vehicle		5.88 % Overcapacity		
	135003	M	06:52:00	10:45:00	ST40	BUS: GILLIG,2014	6118	06:52:00	10:45:00	Overcapacity

Comparison Table Before and After Enterprise Database

Department and Application	Before	After
Training and Education Management System	Legacy Access Database	Web Based .NET MVC HTML5 Application, data stored in SQL Server Database and using Enterprise Database for other sources
Customer Service Complaint System	Legacy Classic ASP Application	
Information Service AD Updater	N/A	
Scheduling Bus Stop Work Order System	N/A	
Mobile Website	Legacy PHP web page	
Key Performance Indicators (KPIs)	Manual KPIs	

Comparison Table Before and After Enterprise Database

Department and Application	Before	After
Maintenance PMI, Vehicle Location, Road Calls Reports, Vehicle Miles, Materials and other Asset Management Related Reports	Manual and legacy reports	SQL Server Reporting Services (SSRS) Reports
Fuel Tank Monitoring System	Veeder Root Desktop only	Sever Application Veeder Root, Inform.net version 1.1.0.7
Scheduling System Upgrade	Hastus 2006	Hastus 2012
Operator Signup System	Legacy Access Database	Hastus BID 2012
Internal Employee Portal	SharePoint 2007	SharePoint 2013 Office 365

Training and Education Web Application

Course Enrollments - Trainee

File Edit View Favorites Tools Help

AC TRANSIT Training and Education ▶ Course Enrollments

Home Class Descriptions Course Enrollments Attendance Resources Admin

Hi! AC TRANSIT Trainee

Course Type: Transportation, Maintenance, Other Course: Accident Training, All Hazards Aware Employee: Employee Badge ☒ Just show current schedules From: 3/25/2015 To:

+ Accident Training
+ All Hazards Awareness/Preparedness for Transit EEs
+ Braun Lift Training
+ Bus Operator Return from Leave
- Engine Overhaul and Troubleshooting - HDCMAP
- 02/02/15 - 05/19/15 (4:00 PM - 7:30 PM)

Badge	Trainee	Department	Division	Note	Add New (5 of 6)	
042021	Alfreds Vega	D-6 Garage	TED		Attendance	Delete
042554	Jason Regino	Revenue Vehicle Maintenance	TED		Attendance	Delete
041703	Victor Pierson	D-4 Garage	TED		Attendance	Delete
042532	Mercedez Tarrant	Revenue Vehicle Maintenance	TED		Attendance	Delete
042667	Phillip Sanchez Jr	Revenue Vehicle Maintenance	TED		Attendance	Delete
042726	Shawn Williams	D-2 Garage	TED		Attendance	Delete

+ Maintenance Coach QT/DL 170
+ New Bus Operator
+ New Service Employee QT
+ Return from Leave Training
+ STB (Small Transit Bus Eldorado E-450) Maintenance
+ Steering and Suspension HDCMAP

Customer Relations Web Application

Customer Relations > Tickets > Update

Home Reports Resources Admin Help Hello atajadod | Log off

Ticket # GO New Dept Tickets Assigned Tickets Ready To Close Rejected Search

Ticket 371693 (OPEN)

Reason Code 1: Pass-Up
Reason Code 2: Select...
Incident Date/Time: 2/20/2015 7:11 AM (PS)
Boarding Location: 51561 Dakota Rd Fremont Blvd
City: Select...
Route: 200
Division: GO
Direction of Travel: Fremont Bart.
Vehicle Number: 1409
Operator Badge: 42099
Operator Name: GRIFFIN, KATHERINE JEWEL
Operator Title/Dept/Gender: Bus Operator (42) / D-6 BUS DRIVERS / F
Operator Description: Women

Customer Comments:

Bus was due at stop at 7:11 am. Passenger was standing where passengers board the bus on the bus stop. Passenger waved at bus to stop the bus kept going. Passenger was headed to Fremont Bart. The bus was on time with a women driver passenger wasn't able to get coach number

Customer:

First Name: Gnie
Last Name: Pars
Address 1:
Address 2:
City: Select...
State: CA
Zip Code:
Email: Send
Phone:
Respond Via: None

Ticket Status:

Ticket Status: Ready To Close
Department: D6-Superintendent
Assigned To: Don Walton
Created: 2/20/2015 7:24:39 AM
Priority: Normal
ADA? ☐ Time VI? ☐
Source: Phone
Received By:
Closed:

Contact History:

Comments:

Not Applicable Enter text... ADD

Employee	Via	Comment	Date & Time
(no data)			

Research History:

Comments:

Enter text... ADD

Employee	Comment	Date & Time
dwalton	Operator Griffin stated at all of her stops. Operator was instructed on checking for passengers at the stops, and when they are walking up to the stop.	3/25/2015 4:15:32 PM
dwalton	RFC ISSUED.	3/23/2015 6:29:18 PM
shale	Noting that this is the first complaint put in after an incident reported by Operator Griffin, and the customer does not want to have a reknowledge. This is	3/11/2015 11:27:02 AM

Active Directory Updater Web Application

←

→

https://activebapps/ACTransitPortal/Utility/ActiveDirectoryUpdate#

Alameda-Contra Costa Tr...

File

Edit

View

Favorites

Tools

Help

AC

TRANSIT

Alameda-Contra Costa Transit District

Dashboard

Key Performance Indicators

Transportation

Utilities

Filter

Just show mismatches

Just show records which have PeopleSoft data.

Search

First Name	Middle Initial	Last Name	Preferred First Name	Email	Job Title	Department	Office	Phone	Mobile	Supervisor	Employee ID	Alias	
▼		Hernan	Vargas	GO, 5th Floor, Budget Dept.	HVARGAS@actransit.org	Budget Manager	Budget Department	GO	7123		James D. Pachan (jpachan)	041636	HVARGAS
▼		Cleo	Goodwin		Cgoodwin@actransit.org	Sr. Marketing Representative	Marketing/ Community Relations	GO	4709	510/316-8776	Victoria Wake (VWAKE)	042191	Cgoodwin
▼		Nichele	Ayers	Sr. Marketing Representative	NAyers@actransit.org				4879				NAYERS
▼		Sai	Krishnan		skrishnan@actransit.org	Consultant/Contractor	Finance-Senior Management	GO	7122	510/206-0669	Lewis Clinton (Lclinton)	042254	skrishnan
▼		Kim	Brooks		KBrooks@actransit.org	Transportation Supervisor	Road Supervision	D2 - CD		510/774-0180	Joseph Robinson (jrobinson)	030638	KBROOKS
▼		Elisabeth	West		EWest@actransit.org				4785				EWEST
▼		Bhawinder	Padda	Div 3, Maintenance	bpadda@actransit.org			D2					bpadda
▼		Richard	Pack		rpac@actransit.org	Facilities Maintenance Trainer	Facilities Maintenance D-2	D2 - M		510/421-1388	Paul Ortiz (portiz)	041655	RPACK
▼		Michael	Penn		mpenn@actransit.org	Electrician	Facilities Maintenance D-2	D2 - M		510/407-7606	Paul Ortiz (portiz)	041939	mpenn
▼		Nicole	Copney		ncopney@actransit.org				4786				NCOPNEY
▼		Cheryl	Koch		ckoch@actransit.org				4784				ckoch
▼		Kenisha	Sparrow			Bus Operator (42)	D-6 Bus Drivers	D6 - T			Vicki Riggins (vriggin)	032103	KSPARROW
▼		Ronald	Price		roprice@actransit.org	Journey Facilities Mechanic	Facilities Maintenance D-2	D2 - M		510/915-2165	Paul Ortiz (portiz)	060988	roprice
▼		Sandy	Lee		sallee@actransit.org	ATU Union Officer	Special Division 7	GO				031179	salee
▼		Damell	Pierre			Service Employee	D-2 Fuel Island	D2 - M			Chris Durani (cdurant)	041650	dpierre
▼		James	Harrison		jharrison@actransit.org	Training Instructor	Transportation Training	TEC	2581	510/774-0515	Joseph Tating (jtating)	032914	jharrison
▼		Lalit	Saluja		lsaluja@actransit.org	Consultant/Contractor	Finance-Senior Management	GO	7120	510/452-7662	Lewis Clinton (Lclinton)	042298	lsaluja
▼		Willie	Bradley		WBradley@actransit.org	Waste Clean Up Worker	Facilities Maintenance D-6	D6 - M		510/407-7228	Stanton Nusom (snusom)	040427	WBradley
▼		Roger	Leong			Bus Operator (42)	D-4 Bus Drivers	D4 - T			dcrawley (dcrawley)	033454	rleong
▼	P	James	Garcia		jpgarcia@actransit.org	Inventory Control Clerk	Materials Management	CMF			Frederick Walls (fwalls)	042013	jpgarcia
▼		Gilbert	Torres		gtorres@actransit.org	Parts Clerk	D-4 Storeroom	D4 - M			Frederick Walls (fwalls)	041612	gtorres
▼		Stephanie	Plummer		splummer@actransit.org								splummer
▼		Chris	Andrichak		candrichak@actransit.org	Senior Capital Planning Spec.	Capital Development/Grant Mgmt	GO	4855		James D. Pachan (jpachan)	042513	candrichak
▼		Emily	Sotkus Cruz		esutkus@actransit.org				4787				esutkus
▼		Eyovonne	Eagles		eeagles@actransit.org	Bus Operator	D-4 Bus Drivers	D4 - T		510/9261246	Doris Watson (dwatson)	031823	eeagles
▼		Steve	Smith		ssmith@actransit.org	Journey Facilities Mechanic	Facilities Maintenance Cmf	CMF		510/919-7081	Paul Ortiz (portiz)	040122	ssmith
▼		Sean	Collins		scollins@actransit.org	Training Instructor	D-4 Bus Drivers	D4 - T	2560	510/9261243	Michael Flocchini (mflocchi)	031970	scollins
▼		Trisha	Chachere		tchachere@actransit.org	Legal Assistant	General Counsel	GO	4815		Denise Standridge (dstandr)	043066	tchachere

© 2015 - AC Transit. All Rights Reserved.

Bus Stop Work Orders System

Work Order Types Work Orders

Filters Add New

Stop Ids	Issue Description	Priority	Action Notes	Requested By	Department	Created On	Work Order Type	Status	Project	Modified	Signup
59656	Can we look at moving bus stop pole further up to be in front of shelter Passenger/Opera	Urgent-Hazard		Peter Ho	Road Supervision	3/26/2015	MINOR RELOCATION	Not Assigned		3/26/2015	
59095	Remove stickers and graffiti from flag	Minor Priority		Tony Gee	Marketing/ Community Relations	3/25/2015	GRAFFITI REMOVAL	Not Assigned		3/25/2015	
50965	Remove stickers and graffiti from flag	Minor Priority		Tony Gee	Marketing/ Community Relations	3/25/2015	GRAFFITI REMOVAL	Not Assigned		3/25/2015	
59140	Remove stickers and graffiti from flag	Minor Priority		Tony Gee	Marketing/ Community Relations	3/25/2015	GRAFFITI REMOVAL	Not Assigned		3/25/2015	
59917	Remove stickers and graffiti from flag	Minor Priority		Tony Gee	Marketing/ Community Relations	3/25/2015	GRAFFITI REMOVAL	Not Assigned		3/25/2015	
56022	Remove stickers and graffiti from flag	Minor Priority		Tony Gee	Marketing/ Community Relations	3/25/2015	GRAFFITI REMOVAL	Not Assigned		3/25/2015	
54045	Replace generic decals with 54-a and "554 Limited weekday hours" decals	Minor Priority		Tony Gee	Marketing/ Community Relations	3/25/2015	MODIFY FLAG INFORMATION DETAILS	Not Assigned		3/25/2015	
51527	Take flag for stop 55099 (Broadway at Piedmont, SB) that is at D6. Re-label it with stop 1.	Normal		Aaron Priven	Marketing/ Community Relations	3/25/2015	REPAIR POLE AND FLAG	Not Assigned		3/25/2015	
52595	Add 51B-c to flag	Minor Priority		Tony Gee	Marketing/ Community Relations	3/24/2015	MODIFY FLAG INFORMATION DETAILS	Not Assigned		3/24/2015	
55504	Replace generic 75 decal with 75-h decal	Normal		Tony Gee	Marketing/ Community Relations	3/24/2015	MODIFY FLAG INFORMATION DETAILS	Not Assigned		3/24/2015	
54245	Remove temporary at-stop information installed for Oakland Marathon. Stops lists will b...	Normal		Tony Gee	Marketing/ Community Relations	3/23/2015	OTHER	Not Assigned		3/23/2015	
51340	missing bus stop, bus drivers are not stopping anymore. USA location around grassy area	Normal		Dan Talbott	Customer Svcs Administration	3/23/2015	USA BUS STOP LOCATION	Not Assigned		3/23/2015	
59884	Replace generic decal with 11-c	Minor Priority		Tony Gee	Marketing/ Community Relations	3/20/2015	MODIFY FLAG INFORMATION DETAILS	Not Assigned		3/20/2015	
59144	Replace generic decal with 66-c	Minor Priority		Tony Gee	Marketing/ Community Relations	3/20/2015	MODIFY FLAG INFORMATION DETAILS	Not Assigned		3/20/2015	
58553	Replace generic decals with 99-d, 210-c & 801-b. Leave other decals	Minor Priority		Tony Gee	Marketing/ Community Relations	3/20/2015	MODIFY FLAG INFORMATION DETAILS	Not Assigned		3/20/2015	
57677	Replace generic decals with 14-b, 57-a, 805-a, NX2-a & NXC-a. Leave other decals	Minor Priority		Tony Gee	Marketing/ Community Relations	3/20/2015	MODIFY FLAG INFORMATION DETAILS	Not Assigned		3/20/2015	
57245	Replace generic decal with 215-a	Minor Priority		Tony Gee	Marketing/ Community Relations	3/20/2015	MODIFY FLAG INFORMATION DETAILS	Not Assigned		3/20/2015	

AC Transit Mobile Site

AT&T LTE 8:11 AM

actransit.org

Customer Feedback

For information regarding claims for damages, please go to Government Tort Claims.

Select the kind of input you wish to give:

Report an Incident ▼

Report an Incident

First Name*

First Name

Last Name*

Last Name

Address

Address

City

City

Zip Code

Zip Code

State

California >

Home Feedback YouTube Full Site

< > ⬆ ⬇ ⬅

AT&T LTE 8:10 AM

actransit.org





Real-Time Departures



Trip Planner



Maps and Schedules



Service Notices



Fares and Clipper



Contact Us



News



Line Descriptions



Bus Stops by Line



Transbay Service



Subscribe to eNews



511 SF Bay



Home Feedback YouTube Full Site

< > ⬆ ⬇ ⬅

Next Steps...

Upcoming Projects



Public facing Key Performance Indicators

Google Transit Feed Standards Real Time (GTFS-RT)
Vehicle Updates and Service Updates

AC Transit Schedule data and AVL Real Time API in .NET

AC Transit Website: Responsive

Rewrite of Vendor Registration and Procurement Tools

New CAD\AVL System

Upgrade Asset Management System (Ellipse 8.0)

Hastus 2012 Daily Operations

Upgrading Legacy and Manual Reports: Transportation, Claims, Time Keeping, and Scheduling

Rewrite of Warranty Application

GTFS-RT

The screenshot displays a Google Maps interface with a transit route highlighted in blue. The route starts at Montana St/Fruitvale Av and ends at Highland Ave. & Highland Way. The map shows the surrounding area, including Lake Merritt and various streets. The left sidebar provides transit details:

- Transit directions**
- 10:24 AM - 11:01 AM** (37 min)
- 10:24 AM** from Montana St/Fruitvale Av - **on time**
- Schedule explorer**
- 10:24 AM** ● **Montana St/Fruitvale Av**
- 10:24 AM** ● **Montana St/Fruitvale Av**
- 11:01 AM** ● **Highland Ave. & Highland Way**
- 11:01 AM** ● **Highland Ave. & Highland Way**
- Tickets and information**
- AC Transit** - 1 510 891-4777
- These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

Transit directions

1:25 PM-2:09 PM 44 min

58L

1:25 PM from 2nd St/Oakland Amtrak 3 min late

1 min every 30 min

Schedule explorer

1:25 PM ○ Oakland, CA

1:25 PM 2nd St/Oakland Amtrak

58L towards 58L Oakland Amtrak

44 min (18 stops) 3 min late Stop ID: S0414

Information Confidential

2:09 PM ○ MacArthur Blvd/Millsbrae Av

Walk

About 1 min, 243 ft

2:09 PM ○ MacArthur Blvd & Seminary Ave
Oakland, CA 94605

Tickets and information

40 Transit: 1 510 891 4777

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

Questions...

