

Big Data Analytics for Fleet Asset Management

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Global Fleet Readiness View







BCT Location and High Level Readiness View










SBCT Unit Management Portal


Home > 28th Infantry Division > 56th BCT PANG

● NMC ■ PMC ▲ FMC

*Select a Battalion below

-  2nd BCT PANG
-  53rd BCT FLNG
-  55th BCT PANG
-  56th BCT PANG ▲


-  HHC
-  2nd Sq. 104 Cav Rg
-  1st Bn. 111 Inf Rg
-  1st Bn. 112 Inf Rg
-  2nd Bn. 112 Inf Rg ▲
-  1st Bn. 108 FA Rg
-  328th BSB
-  D Co. 112 Inf Rg
-  856th Eng Co
-  656th Sig Co
-  PSU/ARL Test Vehicles ▲

 CAB PANG



About SBCT Portal Logout

THIS IS A DEMO - NOT ALL COMPONENTS ARE FUNCTIONAL



Individual Vehicle Engine Coolant Temperature History

SBCT Unit Management Portal

> 28th Infantry Division > 56th BCT PAARNG > PSU/ARL Test Vehicles > Vehicle Data

COMPANY: PSU/ARL HEALTH & FUEL | USAGE | MAINTENANCE *Historical data can be accessed via the table below

VEHICLE ID	ENGINE			ELECTRICAL			TRANSMISSION	DIFF/IT-CASE	LAST REPORT TIME
	oil level	change oil (hrs)	coolant temp	battery (v)	alternator (v)	VR	oil temp	lube level	UTC
ARL-1 HEMTT A4	-	-	185	27.9	-	-	164	-	2012-09-05 14:03:02

ENGINE COOLANT TEMPERATURE HISTORY CLOSE


VEHICLE ID: ARL-1 HEMTT A4 (ALERT THRESHOLD: 231.8°F) Start Date: End Date: view

Engine Coolant Temperature (°F)

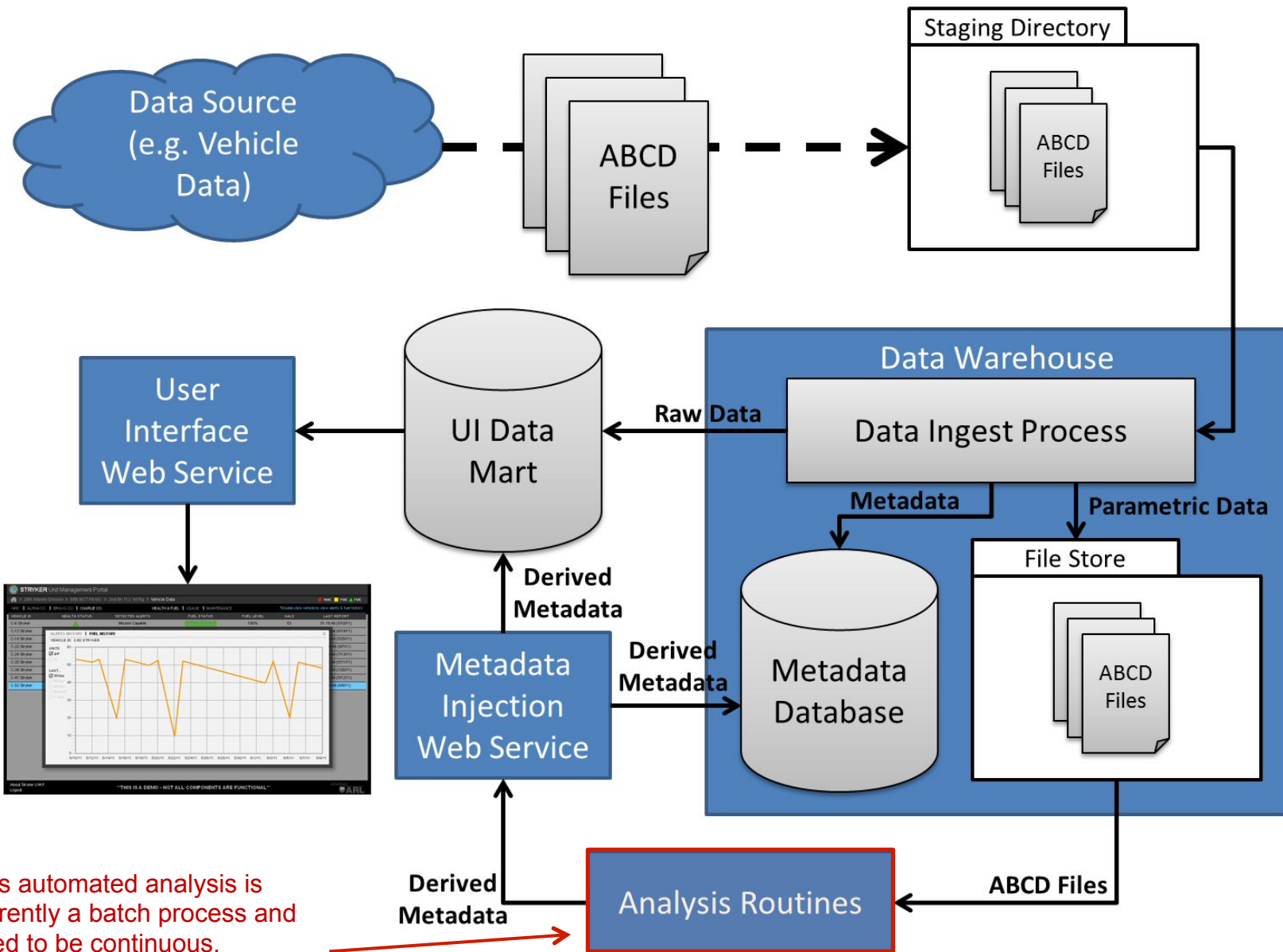
Timestamp (UTC)

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PENNSTATE


Current Architecture

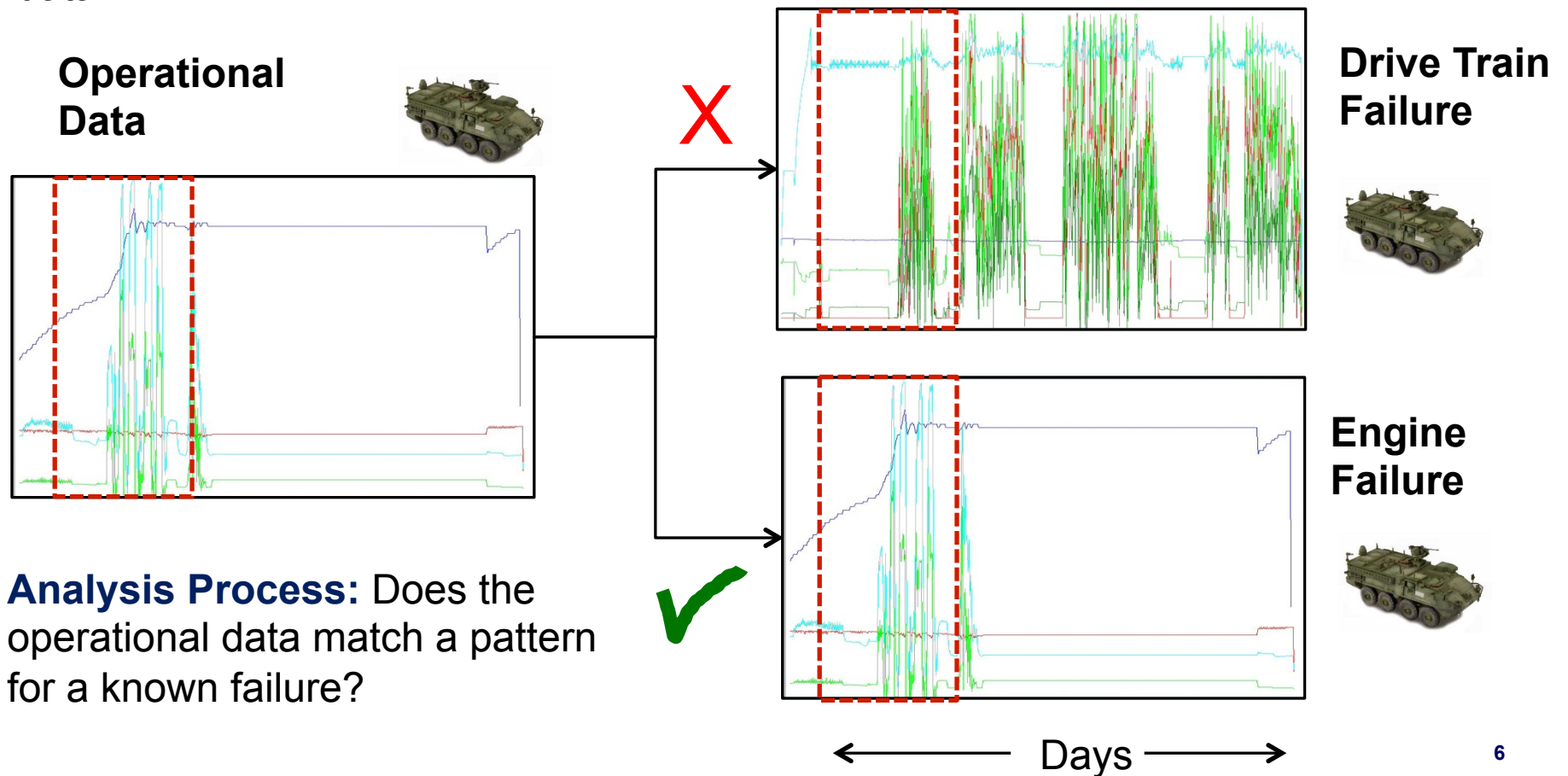


This automated analysis is currently a batch process and need to be continuous.

Predictive Analytics

Objective:

To organize vehicles into paths of potential component failure or maintenance actions, based on comparing real-time data trends of test vehicle data to reference vehicle data.

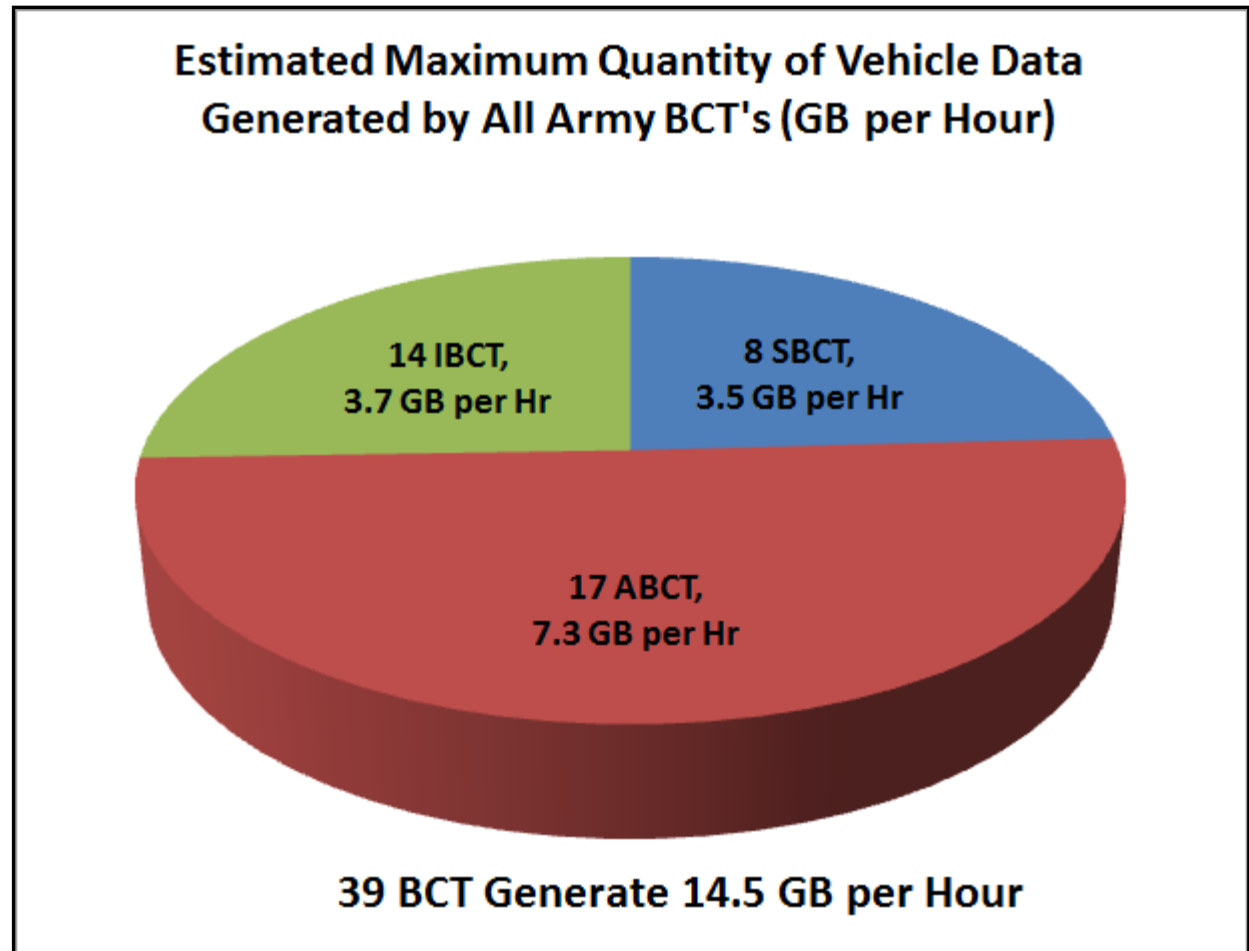


Brigade Combat Teams

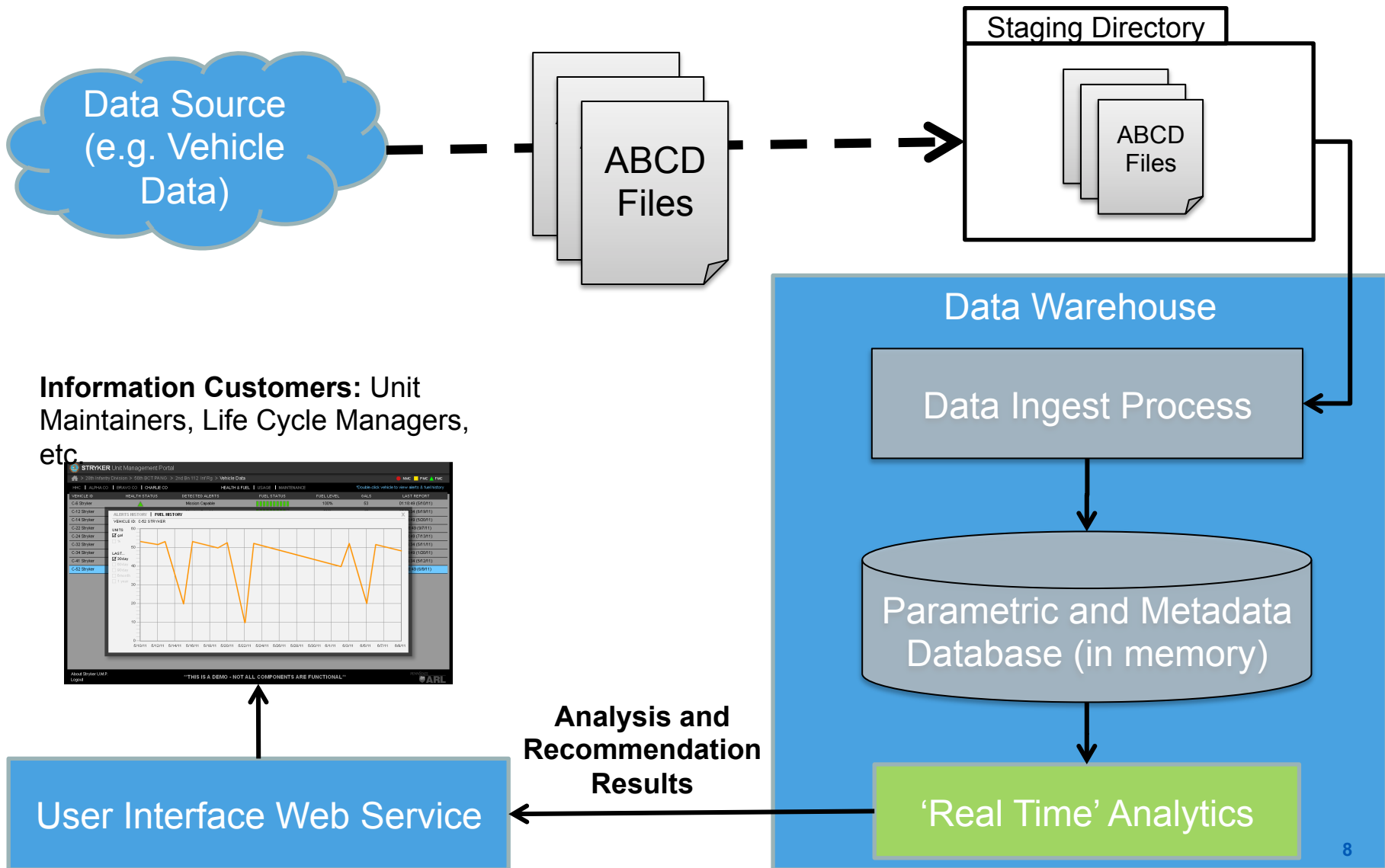
Platform	IBCT
M977 HEMTT CGO	46
LMTV Cargo	138
MTV Cargo	112
Total	296

Platform	SBCT
M1129 Stryker MCV	37
M1130 Stryker CV	28
M1131 Stryker FSV	14
M1132 Stryker ESV	13
M1133 Stryker MEV	16
M1134 Stryker ATGM	10
M1135 Stryker NBCRV	3
M1128 Stryker MGS	29
M1127 RV	52
M1126 Stryker ICV	130
M977 HEMTT CGO	6
LMTV Cargo	95
MTV Cargo	124
Total	557

Platform	ABCT
M1 Abrams Tank	58
M2 IFV	85
M3 CFV	29
M977 HEMTT CGO	66
LMTV Cargo	95
MTV Cargo	96
Total	429



Future Architecture



Prediction = Cost Savings

- Failure prediction is achievable.
 - Prediction capability enables cost savings, enhanced mobility and increased readiness for DoD.
- This technique requires enormous amounts of data.
- Prediction capability is enabled by near real time analytics at the enterprise level.