GIS FOR OPERATIONAL INTELLIGENCE

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Dave Twichell, Esri

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Stanley’s Intelligence

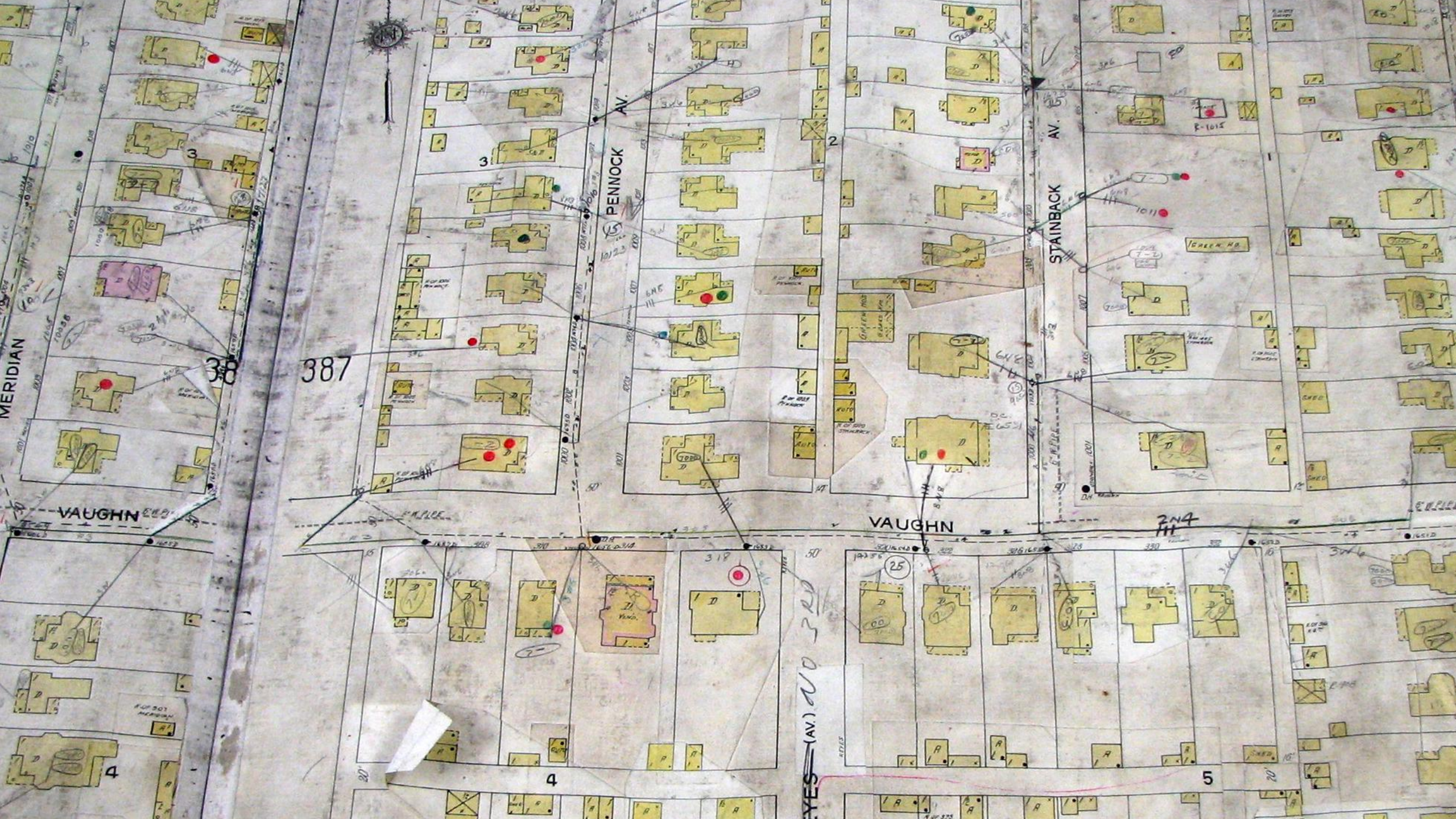
=Operational Intelligence

Operational Intelligence

delivers the knowledge that you need to run **efficiently**, maximize **revenue**, and deliver better **experiences** to your customers

1 Word to Describe GIS?

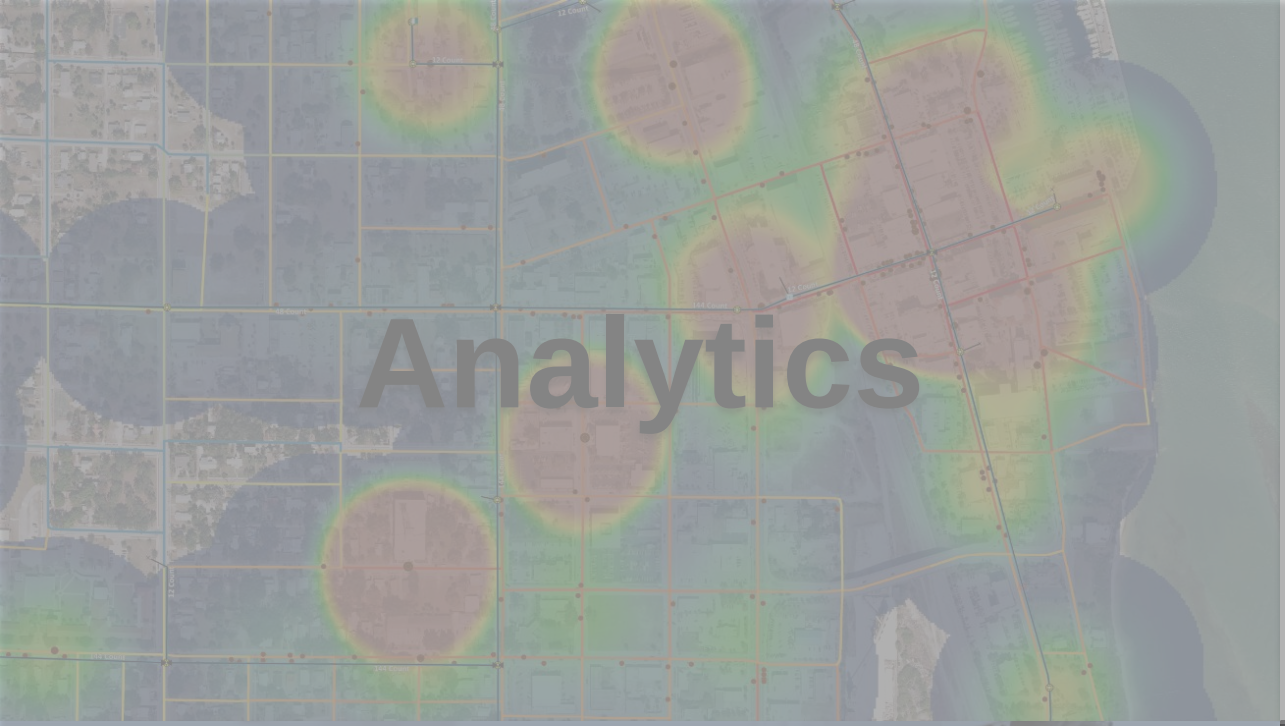
MAP!



MERIDIAN
VAUGHN
PENNOCK AV.
STAINBACK AV.
VAUGHN
387
38
3
3
2
1
4
4
5
(AV.)

STOCKELL ST
AUGHN ST
VAUGHN ST
N 3RD ST
15A
(63)
25B
(43)
ABC
50B
(44)
(111)
A
25A
(81)
4
(47)
B
15B
(171)
4/0
25B
(48)
912
ABC
25A
(51)
15C
(18)
5427
1200A
LBS
37A
(172)
A
(173)
(49)
A
37A
(75)
6
NA
37A
(92)
1006
AN
25B
(175)
25B
(176)
37A
(112)
6
37A
(113)
25A
(114)
AN
1001
(178)
25A
(180)

W
S
A
Z
X


Analytics

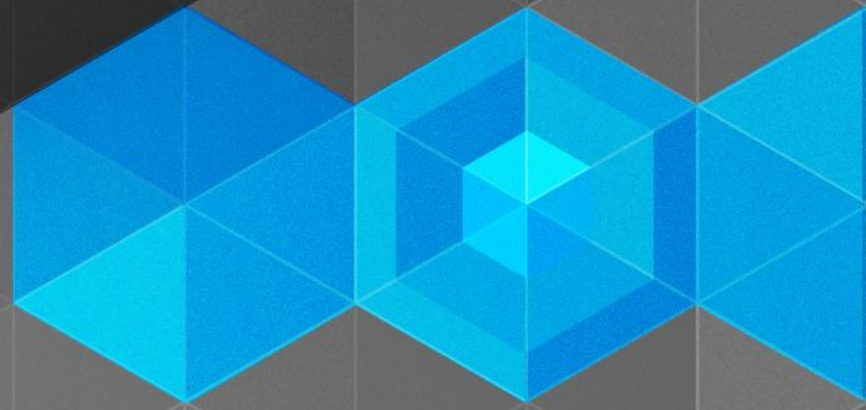
Big Data

Sharing

Real-Time Operations
System Events Down-Assigned
2
Down or Assigned Events
Outage Management Systems (OMS) Real-time Performance
Percentage Customers Out
2%
Customers Down or Assigned
System Events Status
Legend
Down
Cleared
Down or Assigned Events
Recent Outages
Premise ID: 193130860
Time: 8/30/2016 01:51:07 PM
Status: Down
Premise ID: 109834010
Time: 8/30/2016 01:51:06 PM
Status: Down
Premise ID: 135279117
Time: 8/30/2016 01:51:05 PM
Recent System Events
Outage:Fuse
Time: August 30, 2016
Status: Down
Outage:Transformer
Time: August 30, 2016
Status: Down
Recent System Events
Urgent Damage
ALERT
Urgent Damage Events
7
Urgent Damage
ALERT
Total Damage Locations
33
Damage Severity: URGENT
Time: August 30, 2016
Status: pdemer.wpl
Damage Severity: URGENT
Time: August 30, 2016
Status: pdemer.wpl
Damage Severity: URGENT
Time: August 30, 2016
Extensive Damage Locations
Date: April 17, 2014
Staff: wpl.admin
Date: April 17, 2014
Staff: wpl.admin
Date: April 16, 2014
Staff: wpl.admin
Location Log

Efficiency

Are you seeing the whole picture?



WHUD Discovers $430k in Annual Savings

$315,000 In the first week!

FILE TOOLS VIEW

DMA Zone Operation Dashboard

DMA Zone Detalis

MulloyNorth Zone

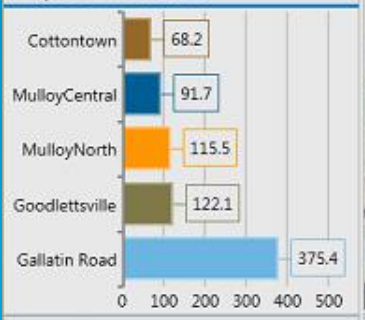
Cost per Day	332.61
GPM at Stake	115.49
Min Night Flow	180.99
Survey Date	9/21/2016 04:30 AM
Tarpet PI	0.05
GPM per Conn	0.14
Miles of Pipe	62.04
Num of Conn	1310
Comments	target 66 mnf

Total Cost per Day

$ 3685.76021986561

Cost is $2.00 per 1000 gallons

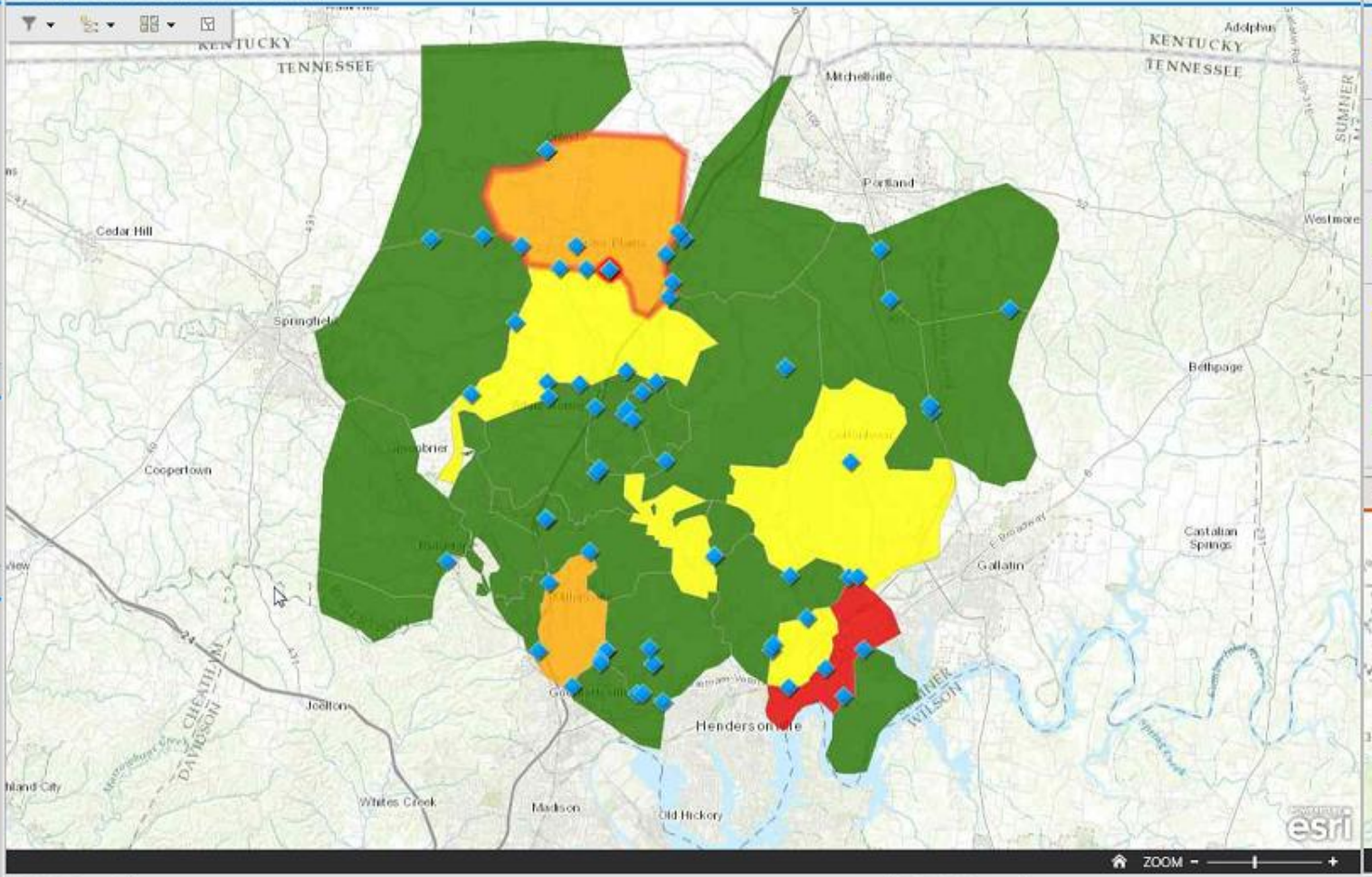
Top 5 GPM at Stake



Legend

- DMA Meters
- DMA Zones (GPM at Stake)
  - -60 to 50
  - > 50 to 100
  - > 100 to 150
  - > 150 to 500

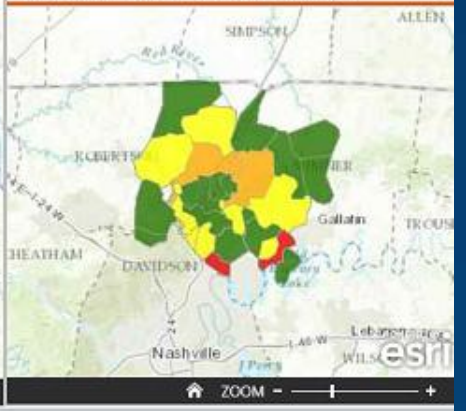
OSiSoft DMA Zones MNF Web Map



DMA Zones

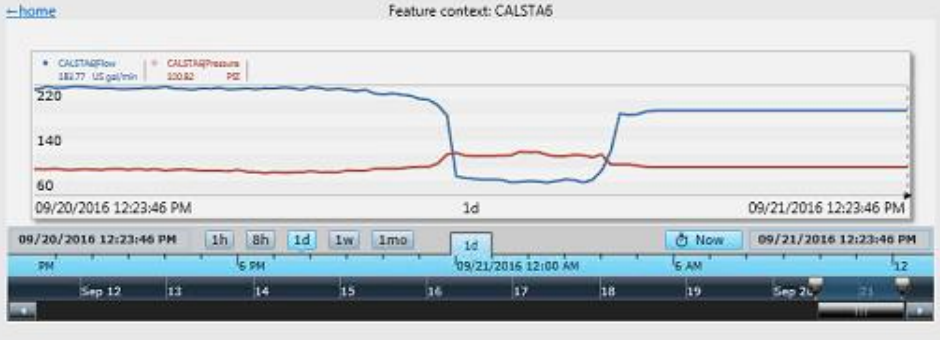
- **MulloyNorth**
  MNF 180.989990234375 @ 09/21/2016 4:30:00 AM
- **Mount Olive**
  MNF 16.0400009155273 @ 09/21/2016 4:00:00 AM
- **Hwy 41**
  MNF 76.1556954887849 @ 09/21/2016 3:50:51 AM
- **Station Camp**
  MNF 120.980010986328 @ 09/21/2016 3:45:00 AM
- **Lower Centerpoint**
  MNF 93.5475997924805 @ 09/21/2016 3:11:11 AM

DMA Zone MNF History Web Map



DMA Zone Flow

DMA Meter data



Revenue

Are you increasing cash flow?

Bell Aliant Delivers New Services to 650,000 Customers

Customer Experience

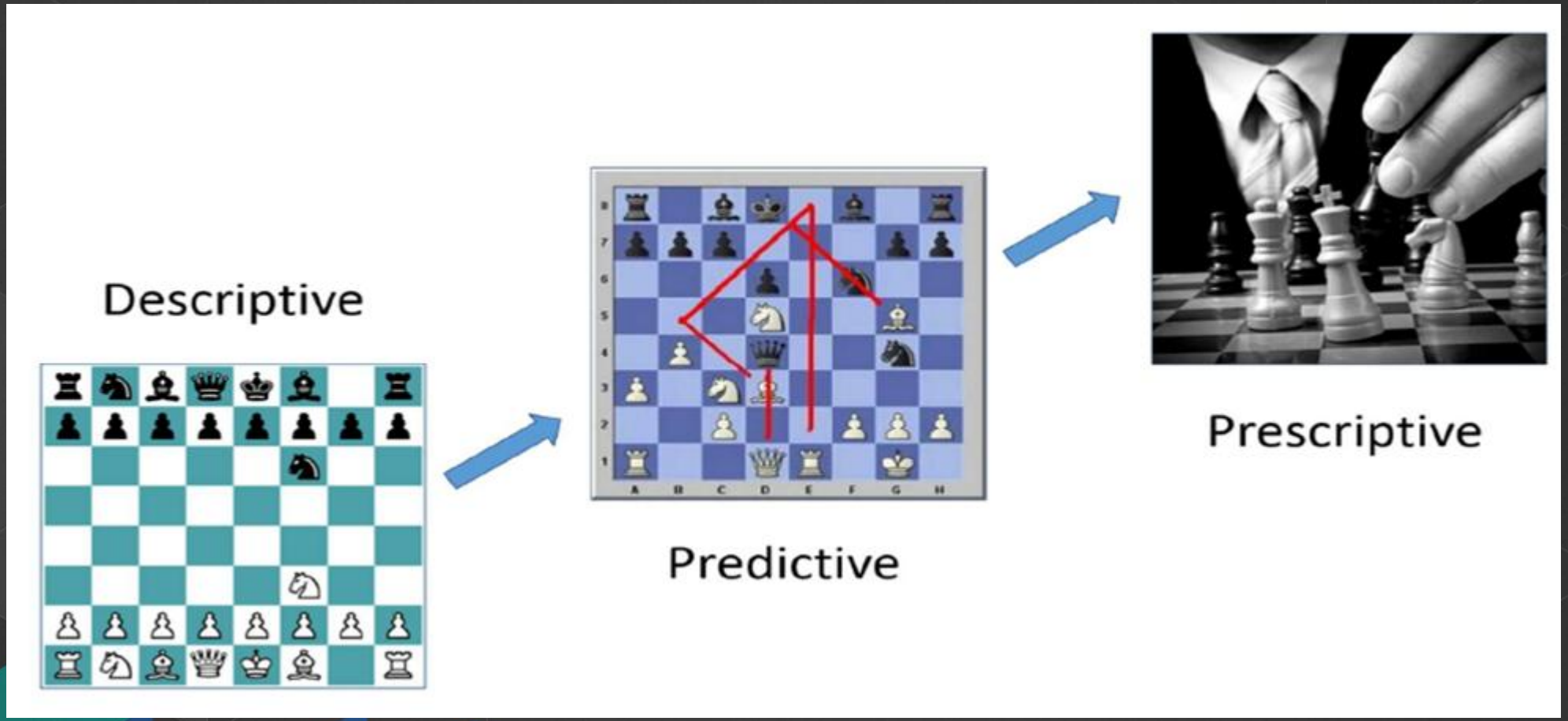
Are your customers satisfied?

Santa Clara County Improves Congestion for 1.8 M Commuters

Meet Stanley's Replacement

Bob

GIS + PI System can Advance Operations



Frost & Sullivan

5 Steps to OI

1

Map Critical Assets

Create Connection Between Physical & Digital

2

Connect Data Feeds

Real-Time, Field, Social, ERP, EAM, Drones

3

Define Operating Rules & Workflows

Set Alerts, Geofencing, On-the-fly Analysis

4

Share Intelligence Securely

With all stakeholders (both internal & external)

5

Perform Optimized Work

Field, Manual, Automated

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ALERT
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Time: August 30, 2016
Status: Down
Recent System Events
Urgent Damage
ALERT
Urgent Damage Events
7
Urgent Damage
ALERT
Total Damage Locations
33
System Events
500
400
300
200
100
0

Esri + OSIsoft Quiz

Mapping Your Real-Time Data? Or Adding Real-Time to Your Map?

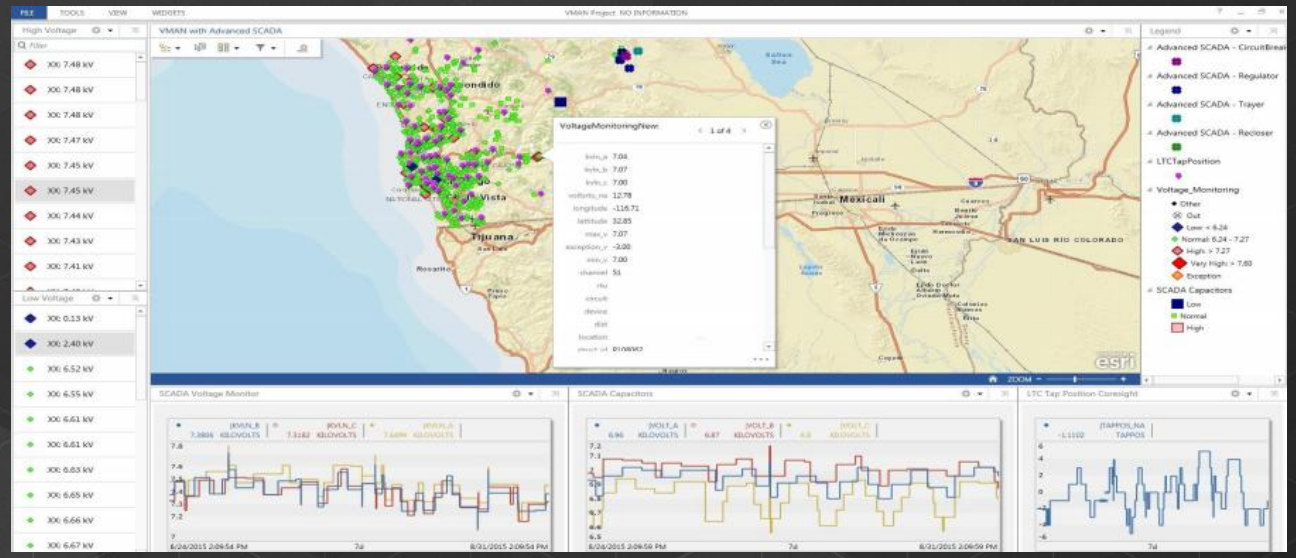
Esri + OSIsoft Quiz

Mapping Your Real-Time Data? Or Adding Real-Time to Your Map?

NEITHER

Esri + OSIsoft

- It’s a revolutionary change
- SDG&E Creates New Information for Operators
  - Real-Time Circuit Watch list
  - Voltage Monitoring
  - Weather Monitoring
  - Shared automatically to Ops Center, Managers, Field, etc.



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State your **name & company**

Please remember to…

Complete the Online Survey for this session

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