**SCSUG**

Bringing the DoD from PC to the Enterprise

Erin Stevens

Erin is a Systems Engineering Manager, turned Client Executive, within SAS Federal. In both roles, she leverages her Management Consulting background to align government's most complex analytic challenges to software solutions.

She has a Bachelors from the University of California, Irvine (UCI) in International Studies and a Masters from the University of California, San Diego (UCSD) in International Business and Economics. It was at UCSD that she learned econometric modeling on a green-screen before seeing the light with SAS.
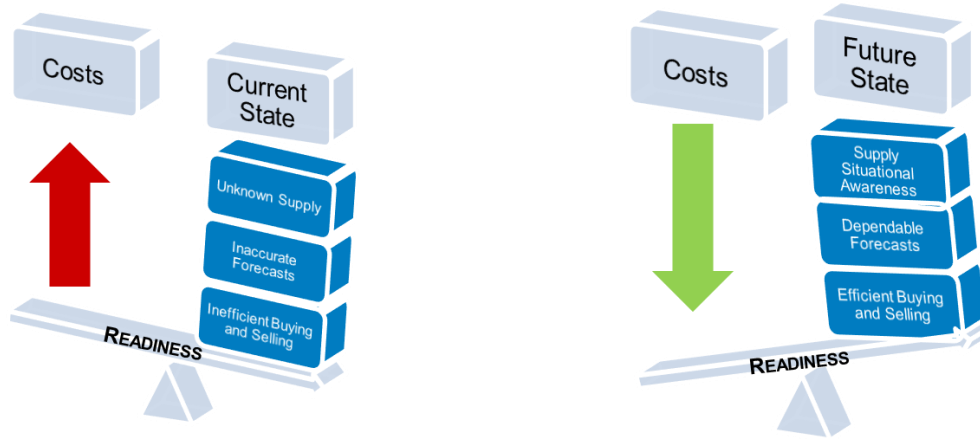
A Data Scientist is...

TimoElliott.com
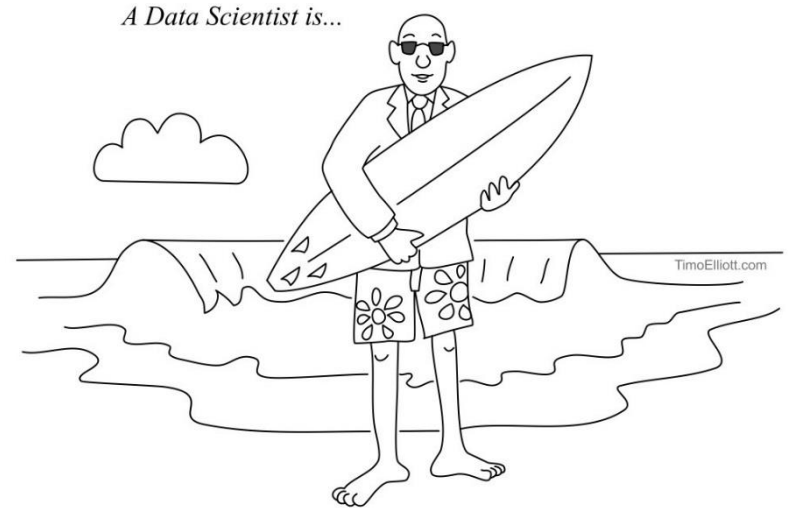
A Business Analyst that lives in California.

Goals

$40B in sales and revenue. 25K employees. 2.4K weapon systems.
A DoD agency approached SAS in need of a modern analytic platform to allow it to run as the Fortune 50 company its balance sheet (and our nation's security) demand

Challenges

Impeding our DoD's ability to accurately procure and place the 5.3M items our troops need:

1. Siloed data repositories
2. Slow processing
3. Many versions of the truth
4. Limited analytics

Needs

SCALABLE, MODERN, & ANALYTICALLY ENABLED

Q: How do we get the items our troops need to them when and where they need them?

A: Improve our forecasting with a scalable data management and analytic platform:

1. **Reduce data movement** and replication

2. **Self-service** data exploration, visualizations, and advanced analytics

3. E**xtends existing coding** abilities (e.g., Base SAS)

4. Enhances modeling and **inventory optimization**

5. Increases **processing efficiencies**

6. **Simplifies** system upgrades, maintenance, and contracts

7. Build-upon **existing investments** (e.g., SAP HANA)

THINKSTOCKPHOTOS/GETTY IMAGES

Solution

Data exploration, visualization, reporting, and advanced analytics via the mechanism of an analyst's choosing: code, Microsoft Office, or a drag-n-drop web interface.

- ✓ SAS Office Analytics (OA)
- ✓ SAS Visual Analytics (VA)
- ✓ SAS Predictive Modeling Workbench
- ✓ SAS Inventory Optimization

What do you mean "clean all this data"?

This was sold to me as the 'sexiest job of the 21st Century'.

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Solution

A MODERN ANALYTIC PLATFORM

Data exploration, visualization, reporting, and advanced analytics via the mechanism of an analyst's choosing: code, Microsoft Office, or a drag-n-drop web interface.

- ✓ **SAS Office Analytics (OA): Microsoft Plug-In**
- ✓ SAS Visual Analytics (VA)
- ✓ SAS Predictive Modeling Workbench
- ✓ SAS Inventory Optimization

Reduces data replication and redundancy

by rendering source data within

Microsoft via SAS

Solution

A MODERN ANALYTIC PLATFORM

Data exploration, visualization, reporting, and advanced analytics via the mechanism of an analyst's choosing: code, Microsoft Office, or a drag-n-drop web interface.

- ✓ SAS Office Analytics (OA)
- ✓ **SAS Visual Analytics (VA): In-Memory, Self-Service, Advanced Visualizations**
- ✓ SAS Predictive Modeling Workbench
- ✓ SAS Inventory Optimization

- *Drag-n-drop data explorations and visualizations*
  - *Leverage and augment SAS code*
    - *Integrates with OA*

Solution

Data exploration, visualization, reporting, and advanced analytics via the mechanism of an analyst's choosing: code, Microsoft Office, or a drag-n-drop web interface.

- ✓ SAS Office Analytics (OA)
- ✓ SAS Visual Analytics (VA)
- ✓ **SAS Predictive Modeling Workbench: Improve Model Accuracy & Timeliness**
- ✓ SAS Inventory Optimization

Access data from SAP HANA to develop sophisticated statistical models in SAS. Then score the data within SAP HANA, for reduced data movement and processing time
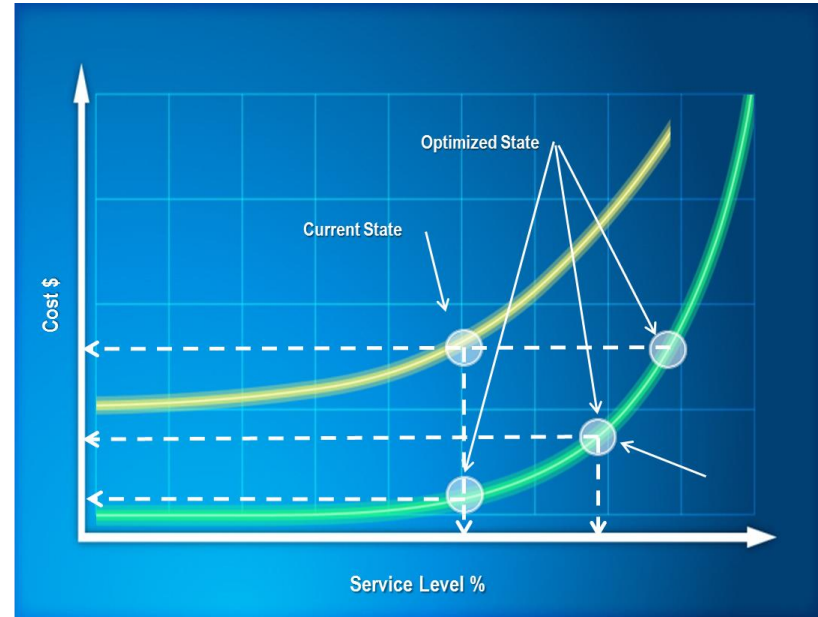
Solution

A MODERN ANALYTIC PLATFORM

Data exploration, visualization, reporting, and advanced analytics via the mechanism of an analyst's choosing: code, Microsoft Office, or a drag-n-drop web interface.

- ✓ SAS Office Analytics (OA)
- ✓ SAS Visual Analytics (VA)
- ✓ SAS Predictive Modeling Workbench
- ✓ **SAS Inventory Optimization**

- *Maintain adequate stock, maximize response times, reduce carrying costs and improve performance*
 - *Calculating optimized inventory levels*

Solution

Transitions from disparate PC licenses to the most scalable infrastructure available today

- **Commodity Hardware:** Affordable & available

- **SAP HANA Integration:** In-database processing for faster results and reduced data movement/proliferation

- **Resource Allocation:** Workload management, queuing, scheduling, & suspension

- **Continuity:** High-availability & rolling upgrades

- **Scalability**: Add nodes, not servers

- **Performance**: Increased throughput & parallelization
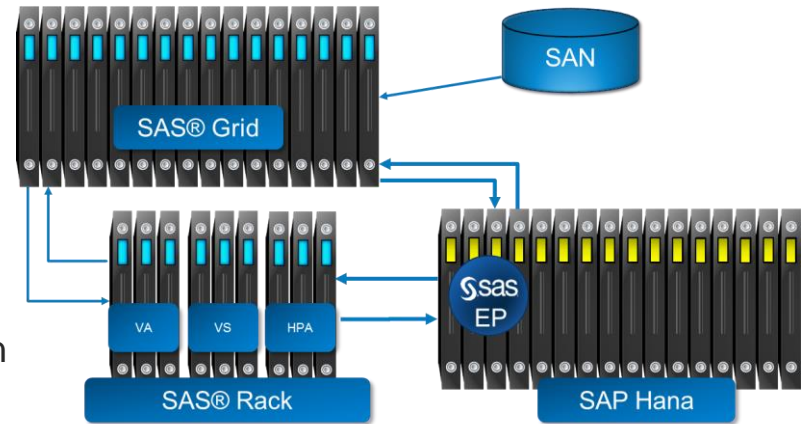
Innovation

The solution combines sophisticated, self-service, analytics with 3 complementary architectural approaches to provide the agency with its most salient information faster:

1. **SAS® In-Memory Analytics**: Faster because it alleviates the need to constantly pull data from a database for analysis.

2. **SAS® In-Database Analytics**: Takes the work (i.e., SAS jobs) to the data (i.e., SAP HANA), saving data movement and conversion time and freeing-up the network throughput.

3. **SAS Grid Computing**: Highly-available, highly-scalable, infrastructure supporting advanced analytics.

Significance

SUPPLIES WHEN & WHERE THEY ARE NEEDED

A modernized IT environment can address analysts' need for greater data access and the tools to explore, report, and model it, while simultaneously providing IT and contracts with simplified data storage, processing, licensing, and maintenance at a reduced total cost of ownership.

For the DoD, it can also mean mission success.