Creating a Navy Acquisition Program Manager Dashboard

Without Breaking the Bank and Disrupting the Program's World Order

By Ken Smith, TSI

At the center of every Navy and Marine Corps acquisition program is its Program Manager (PM) with a faster, better, cheaper mandate. Three questions: How on earth do they juggle the reams of data available to know how best to spend their time? How do they make sure that critical conversations take place sooner than later between them and their highly qualified and experienced leadership team? How can they visually portray the overall health of their Program to their team and superiors? The development and execution of a well-thought-out Dashboard can help. But how does a typical PM, with a billet base of 50 plus or minus, get there without spending a fortune and disrupting the rhythm of capable leaders and their often homegrown, acceptably functioning and practical data management systems already in place?

Key Concepts

Every PM has all sorts of data available, in all sorts of formats and residing in all sorts of places. In addition to the gate and milestone reviews required, PMs have regular performance reviews with their suppliers who also have an extraordinary amount of data and risk reporting requirements. How useful would it be if PMs had a regular portrayal of their Program's performance in a simplistic, balanced way? A PM armed with a dashboard portraying an overarching view of their program's performance can use it to:

About the Author

Ken Smith is a former member of the Senior Executive Service and currently serves as a senior leader within TSI. He is an expert on leadership and government management systems. His decades long and lauded experience in government related strategic planning and measurement efforts at all levels is exceptional – prior to and especially so within Navy acquisition programs for the last 25 years. His thoughts on moving Navy Acquisition Programs into this next generation of program management dashboard capability follow. Got questions? Contact Ken at KS@TransformationSystems.com.

- Ensure critical conversations at all levels happen sooner than later,
- More easily keep customers and stakeholders informed,
- Better inform and engage All Hands.

Many PMs may be unaware they can create this portrayal with a relatively modest cost investment. Issues limiting PMs from proceeding include beliefs that it is: too hard to do, will not add contextual value relative to the cause of performance, and will be perceived as a reflection of staff, not process, performance. These issues are very real as perceptions, but don't have to be showstoppers provided they are proactively addressed at the beginning and throughout the effort via sound training, development and change management activity.

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Ten Steps – Design through Deployment

From our experience, there are ten iterative process steps involved in the design and deployment of every dashboard. Each is generally described as follows.

Step One – Fit the Dashboard Development Approach

There is no one size fits all approach to developing a dashboard. Because the dashboard intends to show the overall health of a program, dashboard development must be a persistent priority of the PM and Deputy Program Manager (DPM). Even with dedicated support from the top, it can take a fair amount of time. We've known dashboards to remain in the development mode for one to two years. Don't fret, it's not two years' worth of full-time effort. Rather, it's the result of the intellectual rigor required along with other priorities that collectively work to move the project to the right on the calendar.

An early requirement of this step is to decide who will be a part of the development effort. It's a choice between a more centralized or decentralized method to developing initial proposals associated with each step. This and other development issues are addressed in the project's charter and its related Plan of Action and Milestones (POAM).
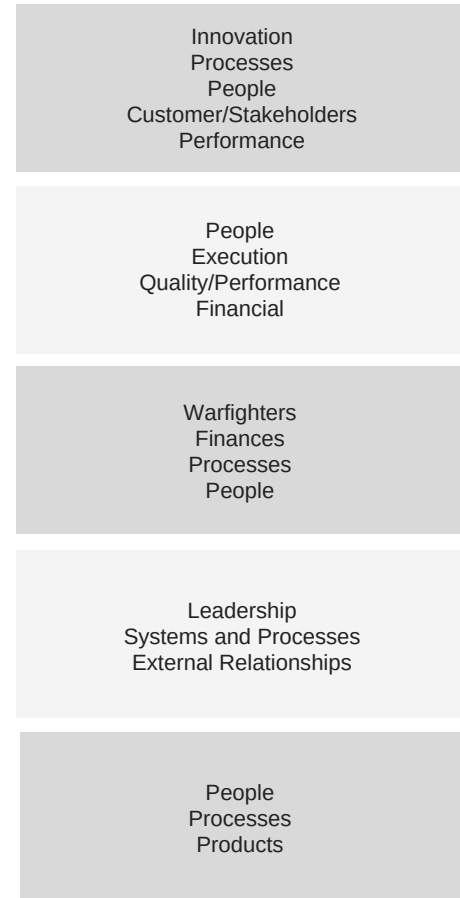
Step Two – Conduct Dashboard Concepts Training

We've found that one critical success factor is to ensure the program office, including all its leaders and staff, are proficient in the fundamentals of performance measurement terms and concepts. Having everyone at the same intellectual baseline level or above is one of the best ways to gain support for the effort. Generally, a half-day workshop is sufficient. In addition to covering technical topics such as the pros and cons of quantitative versus qualitative data associated with performance measures, the training focuses on how the dashboard benefits the program. The training is also the time to introduce the POAM.

Step Three – Identify Key Performance Areas (KPAs)

KPAs are "categories" or more simply a way to "bucketize" related measures of an activity or result. Programs that have robust strategic planning efforts often use KPAs to organize goals and objectives. A key attribute of KPAs are that they are "balanced." In 1992, Robert Kaplan and David Norton popularized the concept of a "balanced scorecard" based on four KPAs: Financial, Customer, Internal Business Processes, and Learning and Growth. The concept is based on the idea that most activity and results fall in one of these "buckets" and performance

should be assessed in a "balanced" way because poor performance in one area might be the result of something in another area. While the concept of "balance" has taken root as a KPA development best practice, over time organizations have refined Kaplan and Norton's original list of four to better fit their strategic needs. Below are actual examples of Navy acquisition program KPAs that have been used.

Innovation
Processes
People
Customer/Stakeholders
Performance

People
Execution
Quality/Performance
Financial

Warfighters
Finances
Processes
People

Leadership
Systems and Processes
External Relationships

People
Processes
Products

Among the differences within these five examples, it's pretty easy to find the similarities. Gaining consensus within a program around which KPAs to use is the objective of step three. The good news is that because there are so many examples to share, this step can be one of the least time consuming.

Step Four – Inventory how KPAs are Currently or Could be Measured by Key Performance Indicators (KPIs)

This step focuses on identifying KPIs that are already being maintained as well as those that could be created to understand performance at the KPA level. The term KPI is used synonymously with the terms metric and performance measure. What makes it a more favorable descriptor is the word "indicator," which implies that in most cases no one measure or metric can provide the full

story. Important during this step is not so much deciding what data is ultimately tracked and/or refined for the dashboard, but rather what is available or could be easily available for the dashboard.

For dashboard development, this step introduces a data/information hierarchy concept. Level I is the actual KPI that will end up on the dashboard. Level II refers to the data/information used to create the Level I KPI. It is not unusual to identify multiple data/information elements at Level II, especially for program lifecycle execution oriented KPAs. In some cases, this step even identifies Level III and perhaps Level IV data/information.

Many Level II data sources are in the form of spreadsheets, power point presentations and word tables/reports for which quantifiable data values must be manually calculated. One of the discoveries during this step is that often the data are not tracked/reported using a consistent template, thus creating a challenge to develop an overarching, integrated portrayal. Another discovery during this step is just how little readily quantifiable data there is, not to mention trends available. Understandably, some Level I KPIs along with their supporting Level II data/information are not suited for a purely quantifiable assessment, a challenge, but not insurmountable provided the assessment approach is reliable and credible.

Step Five –Select the Critical Few KPIs for Each KPA

Once an inventory of potential KPIs is created for each KPA, the next step is necking those down to the critical few that go forward for further refinement to Level I, dashboard status. Based on our experience, it's during this step that the dashboard's purpose is often revisited. Those engaged with the dashboard's development often find themselves asking again during this step; what are we trying to measure and how do we intend to use it? As an iterative process, this is a natural and even a desired response to what is generally a relatively big list of possibilities resulting from step four. To help guide the discussion to select the actual dashboard KPIs, TSI applies the rule: "Audience + Purpose = Design." This equation is emphasized here and works to seed future discussions. Developing KPI selection criteria is a formal way of applying this rule.   Most programs find a need to return to Step Three for adjustments and reality checks related to their original KPA foundational constructs.

The dashboard's design must recognize that not every KPI will be relevant all the time. Acquisition programs have a maturing lifecycle, most are complex but some are as simple as; decide what to buy, buy it, and deliver it.

Depending on the results of step three, there will likely be KPIs focused on the phases of program execution, not all of which are in play at any given time. With some exceptions, this phenomenon is generally not applicable to People or Workforce oriented KPIs. Measures intended to understand workforce health are typically relevant regardless of the lifecycle.

Step five also seeks to identify any leading KPIs from the inventory conducted in step four. Leading verses lagging indicators have some extra value but they are not always readily available.

Step Six – Identify the Characteristics of Each Critical KPI

Once the critical KPIs destined for the dashboard are settled, each KPI needs to be fully defined and vetted. Although there can be more, TSI has found there are eight fundamental characteristics for defining KPIs.

Name The name of the KPI as it will appear on the dashboard.	**Description** A definition/description of the KPI. What does it measure?
Purpose A description of why this KPI needs this type of visibility. Why it is significant and how will it be used to drive performance?	**Data Sources** A description of the underlying Level II data sources, e.g. name of the report(s) and/or presentation(s).
Data Sources Portrayal A description of how the underlying Level II data sources are presently portrayed, e.g. graphs, tables, narrative.	**Owner** The name of the person who owns the KPI and will be responsible for ensuring reporting.
Frequency The frequency for which reporting occurs, e.g., monthly, quarterly, etc.	**Performance Values** The definition of Red, Yellow and Green ratings, e.g. 🔴 = ? 🟡 = ? 🟢 = ?

Of the eight characteristics, without a doubt, the discussion around the Performance Values is the most challenging. While many programs are satisfied with a three-point scale of red, yellow and green, some programs choose a four or five point scale. The rationale behind something more than a three point scale is the view that there is a big gap between yellow and red when it comes to what is critical. Most PMs can tolerate a period of yellow performance as it can easily tip back to green. It can also easily tip to red. Thus, while not required, a value in between yellow and red can serve as an extra warning light.

When thinking about Performance Values, recall the first reason in favor of a dashboard listed on page one is to "ensure critical conversations at all levels happen sooner than later." With this in mind, Programs should avoid the natural inclination to define Performance Values as only for what is in its control. As such, it is not at all unusual for a KPI value to equal red as a result of an external factor. Especially so in these situations, the sooner a PM elevates an issue the better.

Another significant discussion during this step relates to qualitative verses quantitative measurement approaches, or subjective verses objective information and data. The preference naturally leans toward quantitative data, but that's not easy to do when the underlying Level II data represents combining multiple data sets and or is opinion driven. This does not mean that qualitative measurement approaches lack merit, qualitative performance values are very acceptable, provided there is an underlying rigor to the determination. In 1980, Dr. Richard Wirthlin, President Reagan's pollster, introduced this public opinion survey question, "Do you believe the country is on the right track or headed in the wrong direction?" Clearly, there is no single quantifiable KPI to support answering this question and the answers are subjective. Nevertheless, the question has been asked by every presidential campaign since and has become a cornerstone in the development of campaign strategy.

Still, even when lucky enough to have quantitative information, things are not always black and white. The data could show performance as green, but you know that because of some unique issue to that acquisition, it's going to go south quickly. So the performance values might need to include an override or alert feature.

The product resulting from step six is usually a table or matrix, organized by KPAs and addressing each of the eight characteristics by KPI.

Step Seven – Design the Dashboard Portrayal

There is no one way to graphically design what a dashboard portrayal should look like. But there are some key concepts to consider.

- Organize KPIs by KPAs. Think about how the information should be arranged for maximum visual impact. For example, some programs consider certain KPAs as performance drivers, while other KPAs are more like outcomes.

- Try to limit Level I KPI portrayals to one page. In addition to showing overall program health, one of the reasons to have a dashboard is to show the interrelationship among KPAs/KPIs. For example, if staffing is a KPI and showing red, there's potential correlation to the performance of a schedule KPI. Other reasons for a one-page limit relate back to the three purposes of a dashboard mentioned on page one of this paper. There may be a need for supporting Level II portrayals as part of an overall design, but a dashboard starts to lose its impact when Level I KPIs require multiple pages.

- Avoid complex written explanations on the dashboard. There is a tendency to want to incorporate written explanations in lieu of or in addition to other review opportunities. Dashboard reviews should be accompanied by a verbal explanation. Extensive written explanation is generally not very practical and adds to the reporting workload.

Step Eight – Develop a Data Collection Tool

This ten-step approach intends to work with current data collection systems already in place. As previously discussed, programs have a variety of Level II formats and tools to collect performance data. An effort to standardize those systems using an internally developed database approach is often cost prohibitive. It would certainly interfere with the cultural work rhythm by forcing data providers to either maintain two systems or dropping a homegrown system in favor of a new one. The Navy is experimenting with commercial, cloud-based products available to handle dashboard reporting. Here too, the costs, both financial and cultural most likely outweigh the benefits at a program level, particularly during the introduction period. It's not that a program should totally dismiss these paths. It's often a question of when to upgrade? It is TSI's experience that a "low-tech" approach to data collection is the better path until the dashboard is fully introduced, is being used and is sufficiently mature. This allows the developers to focus energy on Dashboard content and analysis, rather than the learning curve of a new technology.

TSI has had positive experience with Excel in the role of a data collection bridge between Level II systems and the Level I dashboard portrayal. The latest versions of Excel offer a fair amount of macro programing capabilities which makes the entry of performance value data relatively easy. The development level of effort is less intensive especially when related to the inevitable changes in requirements as the dashboard matures. While this

approach works well to collect the Level I dashboard data inputs, it's only a bridge, getting to the other side, i.e., the Level I dashboard portrayal is a manual process, albeit not particularly labor intensive once the design template is settled.

Should the program elect a reporting process that calls for multiple people to enter the data, then the choice of where to host the tool becomes more of a factor. The Microsoft SharePoint platform available to many programs (often rebranded, e.g. iNAVSEA, VIPER) has limitations around supporting macros, albeit not insurmountable. Alternatively, a program's "shared drive" typically has fewer hosting issues.

For most programs, because of its ease to adapt, the value of using the Excel approach, especially during the formative steps makes the most sense. Going forward, other platforms may ultimately prove to be better.

Step Nine – Deploy a Written Reporting and Evaluation Process

Whether called an Instruction, Standard Operating Procedure, Business Practice, or Desk Guide, most programs have a method to document an internal process. PMs will want to use this method to document their dashboard processes and business rules. Topics to cover include:

Definitions	Roles and Responsibilities
Terms such as KPA, KPI, Level I and II data among others will need to be defined for most users.	To include KPI Owners along with the roles of others associated the dashboard's production and use.
Methods and Tools	**Procedures**
A description of the products that result from steps 6, 7 and 8.	A flow chart or narrative associated with the periodic reporting timeframe and review including any relevant links.

A key concept to finalize in this step is how the dashboard will be used. Most programs have weekly staff meetings and the PM can opt to use one of those during the month to focus on the dashboard. Alternatively, the PM can select a monthly review date with a singular dashboard focus. Whatever the approach, PMs must ensure there is regular meeting time to review the results. Otherwise, programs risk the impression that the effort has no value.

Step Ten – Launch and Adjust

Sooner, rather than later, the dashboard needs to launch. It's okay to launch without everything being finished. For example, there may be value in operating while the process documentation referred to in step nine is in draft because some run time often leads to changes that can easily be incorporated prior to finalization. There may also be some KPIs not yet fully vetted.

From our experience, adjustments to the process and KPI's are a certainty after launch and should be expected. A regularly scheduled "hot wash" evaluation after each early reporting period and periodically after that is recommended.

Congratulations! If you've reached the conclusion of this step, you have a dashboard and more important, a strategic framework to measure success.

Typical Challenges & Ways Ahead

In our observations, the single greatest challenge to success is obtaining buy-in from leadership. Leaders want to know that this "initially perceived" additional level of reporting is actually needed. Here are some key points that facilitate success:

- The most successful dashboards are those created as a result of strategic goals, objectives and plans. If your program has a strategic plan, you are milestones toward a successful dashboard. A solidly developed program strategic plan will have identified KPAs discussed in Step 3.

- As one of our favorite DPM's says about his dashboard, use the "Keep It Simple Stupid" (KISS) principle. He's right, don't go overboard with complexity.

- Start using it to guide meetings (periodic staff or dashboard dedicated) as soon as you can, even if it is not completely developed. We've rarely been in a dashboard review meeting that something new wasn't discovered – moreover, the inherent balance of the dashboard leads to all sorts of amazing leadership conversations that would not have happened otherwise.

After reading this paper, you should have a better understanding of how a program dashboard is created. Let us know if you wish to learn more.