

# Are Your Customers Happy?

Using customer satisfaction to drive  
improvement efforts

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# Who is NSA?

- The National Security Agency was established by President Harry S. Truman on November 4, 1952.
- NSA is a Defense Agency within the US Department of Defense and an Intelligence Agency within the US Intelligence Community.
  - By original charter, the Director of NSA (DIRNSA) is a general officer grade O-9 or higher selected on a rotating basis from the US Army, US Air Force, US Navy.
  - By original charter, the Deputy Director of NSA (D/DIR) is always a DoD civilian employee.





# What does NSA do?

- NSA's core missions are to protect U.S. national security systems and to produce foreign signals intelligence information:
  - Information Assurance
  - Signals Intelligence
  - Network Warfare





# Information Assurance Mission

The information assurance mission confronts the formidable challenge of preventing foreign adversaries from gaining access to sensitive or classified national security information.





# Signals Intelligence

The signals intelligence mission collects, processes, and disseminates intelligence information from foreign signals for intelligence and counterintelligence purposes and to support military operations.





# Network Warfare

NSA enables Network Warfare operations to defeat terrorists and their organizations at home and abroad.



President Barack Obama, Vice President Joe Biden and members of the National Security Team receive an update on the mission against Osama bin Laden in the Situation Room of the White House on May 1, 2011., Pete Souza / Courtesy of the White House



# NSA's Mission and Systems Development

- The Information Assurance, Signals Intelligence, and Network Warfare missions are highly technical.
  - Systems development and integration – particularly software-intensive systems – are a key enabler in fulfilling these missions.
- NSA has a diverse set of software development projects.
- Facilitating timely software development that delivers quality sufficient to fulfill the mission are of great interest to NSA.



# NSA Way Overview-1

- “The NSA Way is a unified framework for building large, complex, primarily software systems that meet the diverse needs of NSA missions. It is lightweight, intuitive, and independent of project size and development methodology.”
- It is:
  - Based on a Customer/Supplier theme
  - Focused on outputs over processes
  - About continuous improvement
  - Applicable in Agile, Iterative, and Waterfall LCMs
  - Independent of team size





# NSA Way Overview-2

- NSA Way defines core expectations and best practices for software development.
- NSA Way deploys 'coaches' into NSA systems and software development organizations to provide implementation guidance and to assess progress.
- NSA Way is implemented through:
  - Gates (Life cycle control-milestones)
  - Metrics (Quality related)
  - Processes (currently there are 8)
- Driving cultural and behavioral change first, process maturity second.
- NSA Way is results oriented.



# Why Customer Satisfaction at NSA?

Customer satisfaction surveys measure and evaluate the attitudes, opinions and satisfaction levels of your customers and clients.

For NSA it is to....

- understand what is important to our customers
- focus on what we can do to meet their needs
- build true customer understanding and knowledge
- drive our improvement efforts



# Why Customer Satisfaction at NSA?

## For NSA it is to...

- Increase mission effectiveness, customer efficiency, realization of National Security
- Have repeat methods to increase mission agility
- Increase National intelligence value and National well being

## NOT to...

- increase profits, customer loyalty, brand recognition
- have repeat business to increase market share
- increase earnings and stock profits



# NSA's Customer Focused Software Engineering Approach to Integrated PI

- Flexibility of NSA Way
- Just enough process
- Focus on results not on process



# Customer Driven Priorities

- Need to know what is most important to our customer (e.g., capabilities, timeliness, quality)
- Customer priorities are different for every project
- Vary the rigor of best practices to affect the end result
- Not process for process sake



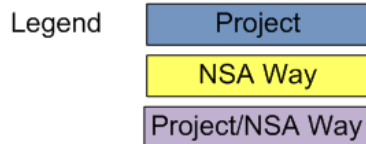
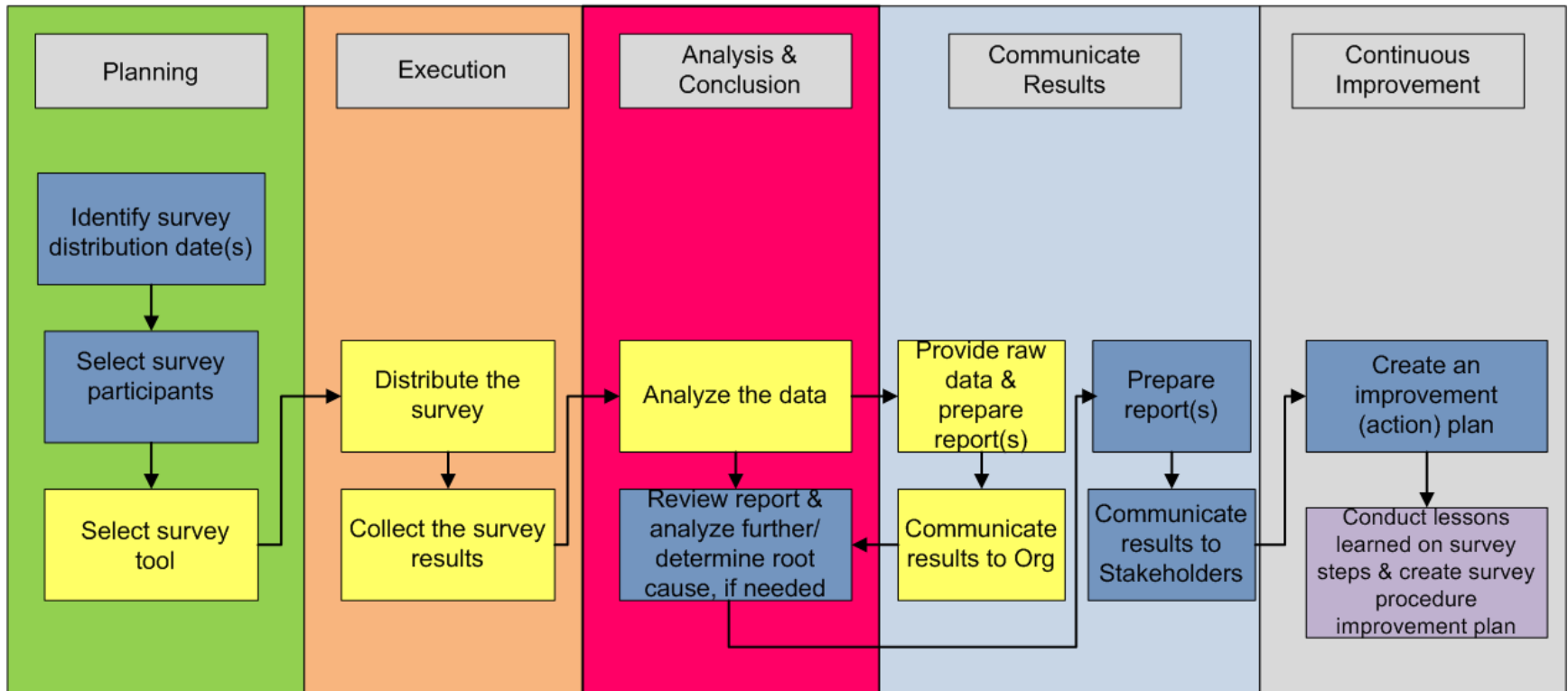
# This is What We Did

- Developed a customer satisfaction survey service
  - Developed customer satisfaction survey questions
  - Developed two-dimensional survey method
  - Researched and obtained a survey tool
- Developed and conducted training
- Piloted our Customer Satisfaction Survey Service

✦ Customer Satisfaction Survey is just the beginning. Next, need to analyze results and develop action plans.



# Customer Satisfaction Survey Service



✿ Optimal survey window is within 30 to 90 days following release/deployment.



# Customer Satisfaction Survey Questions (Statements)

Satisfaction Area	Statement
Mission/ Business Value	The capabilities delivered provided the mission/business value expected.
Product	The capabilities delivered were as expected.
Timeliness	The capabilities were delivered when needed.
Quality	The capabilities delivered met my quality expectations.
Communication	The level of communication throughout the development and delivery of the capabilities was as expected.





# Two-dimensional Survey Method

Degree of Satisfaction	Degree of Importance
Very Satisfied	Very Important
Satisfied	Important
Neutral	Neutral
Dissatisfied	Unimportant
Very Dissatisfied	Very Unimportant
Unknown	Unknown

✦ Knowing the customer's degree of importance helps prioritize PI efforts.



# Case Study / Lessons Learned-1

- Response
  - Low response rate (~25%)
  - Sample size
  - Not statistically significant
- Gathering data
  - Other options for gathering Customer Satisfaction data
  - Customer Satisfaction Survey not be confused with other “feedback” (requirements gathering)
- Customers
  - Cherry picking the customers
  - Sampling your customer set (to prevent burnout)
  - Anonymity
  - Considerations for different types of customers



# Case Study / Lessons Learned-2

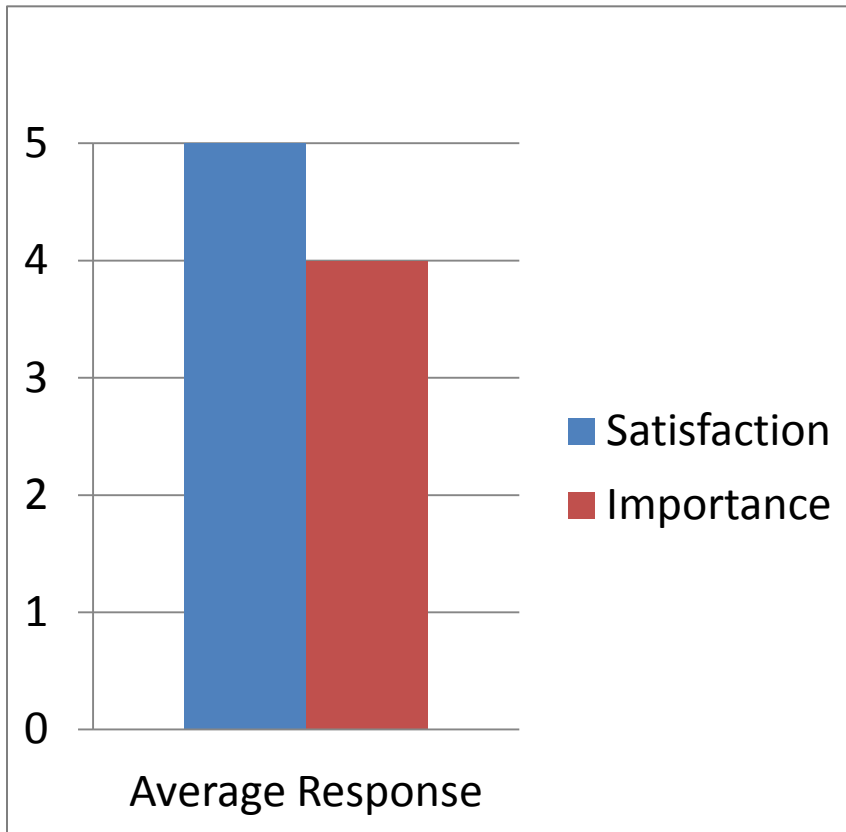
- Survey tool
  - Steep learning curve
  - Difficult to use
- Customer Satisfaction Survey Service
  - Life cycle too long (~ 7 weeks)



# Example: Results

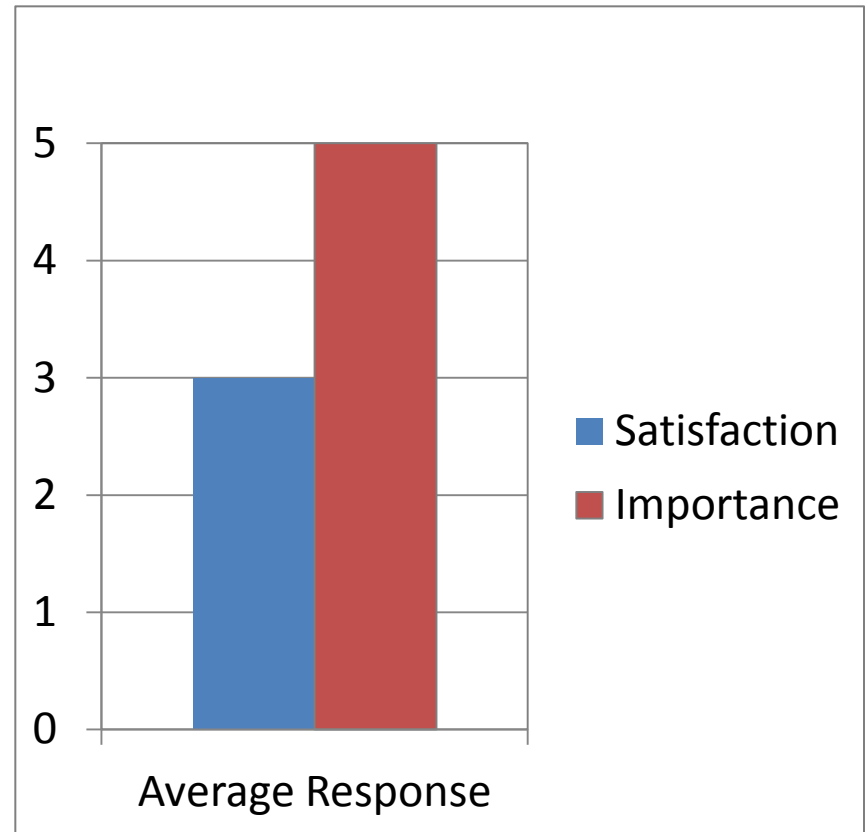
## Mission Value:

The capabilities delivered provided the mission value expected.



## Timeliness:

The capabilities were delivered when needed.





# Value of the Comments.

Numbers are one aspect, comments are another  
IT'S LIKE GOLD!

## Example Comments:

- “Works about as well as can be expected for a web app.”
- “The team is OUTSTANDING when it comes to responding to questions or when I am in need of assistance. Honestly, they respond quicker than any other database support team that I’ve dealt with in the past seven years....”
- “I feel that this organization provides quality products and results. I am a former Z product user and since discovering this product shortly over a year ago, I have no further use for the Z product, as the quality of this product is much higher than that of the Z product.”



# We Survey Our Customers, Too

As an improvement group, we need to know our customers' satisfaction with our products and services.

- Products
  - Website
  - Process Assets
- Services
  - Training
  - Coaching
  - Customer Satisfaction Survey Service
- Modeling the behavior



# Tips for Successful Customer Satisfaction Surveys-1

- Increase sample so that the information received is statistically significant.
- If the sample size is small, look at other survey methods (e.g., face to face).
- Survey a certain percentage over a period of time or number of releases.
- Adjust guidance on question considerations based on relevance to type of customer.
- Provide feedback to the customer early.



# Tips for Successful Customer Satisfaction Surveys-2

- Increase your response rate - Before the Survey
  - Announce the upcoming survey
  - Have upper-management promote & encourage participation
  - Survey timing (mid-week, avoid holidays)
  - Clear, easy, and quick to answer questions
  - Length of survey is short (<10-15 questions)
  - If sent survey previously, mention your improvements from the previous survey





# Tips for Successful Customer Satisfaction Surveys-3

- Increase your response rate - During the Survey
  - Attempt contact with ONLY non-respondents at least once (difficult if anonymous)
  - Have PM personally call all or their most valuable customers asking whether they have received the invitation and if they will find the time to complete it (depends on the # of participants)
- Increase your response rate - After the Survey
  - Keep anonymous respondents anonymous
    - Send out thank you notes to everyone invited to participate
    - Let participants know the results (what you've done well and what needs to be improved)
    - Provide feedback on the changes you plan to make based on the customer satisfaction survey results



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