



# Industry Day Briefing Enterprise Applications Service Technologies (EAST)

Office of the Chief Information Officer

Amy Stapleton

April 22, 2009

VISION: Integrated, secure, and efficient information technology and solutions that support NASA



# Industry Days Schedule: April 22, 2009

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- 9:00 a.m. Event Logistics – Joe Sparmo
- 9:05 a.m. WEST – Brian Dunbar
- 10:15 a.m. EAST – Amy Stapleton
- 10:45 p.m. Break
- 11:00 p.m. ACES – Don Sosoka
- noon Closing – Bobby German, NASA CIO (acting)



# Agenda

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- Contracting Approach
- Performance Work Breakdown Structure
- Application Point Concept
- Contract Pricing
- Service Level Standards
- Small Business Goals
- Source Evaluation Criteria

## Reminder

**This information is preliminary and subject to change when the draft and final RFPs are released.**



# EAST Requirement

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- An Agency need exists for the Maintenance, Enhancement, Implementation, and end-user support of Enterprise Applications offered by the NASA Enterprise Applications Competency Center (NEACC)
- This need can be satisfied via a competitive acquisition for Enterprise Applications Service Technologies, which has been assigned to the NEACC at NASA/Marshall Space Flight Center, Huntsville, AL



# NEACC Lines of Business

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- Financial
- Logistics
- Procurement
- Human Capital & Workforce
- Identity, Credential and Access Management (ICAM)
- Product Lifecycle Management (PLM)\*
- Transitional NASA Data Center (NDC) Services
- Internal Portal & Collaboration\*
- Enterprise Service Bus (ESB)
- Business Intelligence (BI)
- NEACC Support Systems

\* Lines of Business not previously supported by NEACC



# NEACC Lines of Business Resource Baseline

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- The Background and Historical Resource Baseline, Attachment L-B1, provides in-depth information on all applications across all NEACC Lines of Business
- The Resource Baseline data includes but is not limited to:
  - Inception Date
  - Number of Concurrent Users
  - Number of Application Instances
  - Number of Incident Tickets and Change Requests received for the Line of Business during Fiscal Year 2008
- Lines of Business with no supporting data in the Resource Baseline represent scope not previously supported by NEACC



# Period of Performance

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<b>Period</b>	<b>Start Date</b>	<b>End Date</b>
Base Period	May 01, 2010	April 30, 2012
Option 1	May 01, 2012	April 30, 2014
Option 2	May 01, 2014	April 30, 2015



# Transitioning Contracts

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Location	Contract Name	Contract Number	Contractor
MSFC	Unified NASA Information Technology Services (UNITeS)	NNM04AA02C	SAIC
NEACC Line of Business		UNITeS PWS 3.0	UNITeS PWS 4.0
Financial			X
Logistics		X	X
Procurement		X	X
Human Capital & Workforce			X
Identity, Credential and Access Management (ICAM)		X	
Product Lifecycle Management (PLM)		X	
Transitional NASA Data Center (NDC) Services		X	
Internal Portal & Collaboration		N/A	N/A
Enterprise Service Bus (ESB)			X
Business Intelligence			X
NEACC Support Systems			X



# Contracting Approach

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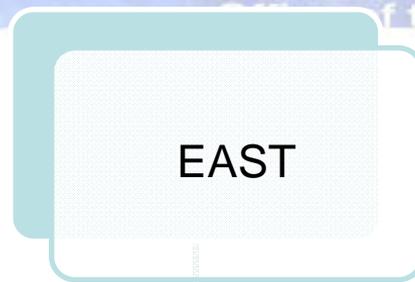
- Contract approach represents a shift towards a Contractor managed services model
  - Contractor is accountable for achieving defined Service Level Standards
  - Government retains oversight of strategic authorities, including Demand Management
- Goal is to improve NEACC operating efficiencies by implementing a factory model
- **Factory** is used to mean an environment that leverages fixed resources utilizing reliable, repeatable processes, best-practice competencies and techniques to manage an application portfolio in a highly efficient and high quality manner



# PWS Overview

PWS 3.0 represents the core NEACC factory **services**. All factory output (completed service requests and operational systems) are delivered via PWS 3.0

PWS 5.0 represents the **supporting functions** needed to perform PWS 3.0 and 4.0 services.



2.0 Program Management

3.0 Applications Operations

4.0 Applications Implementation

5.0 Delivery Functions

PWS 2.0 represents **supporting functions** needed to perform PWS 3.0 and 4.0 services

3.1 Applications Maintenance

3.2 Applications Enhancement

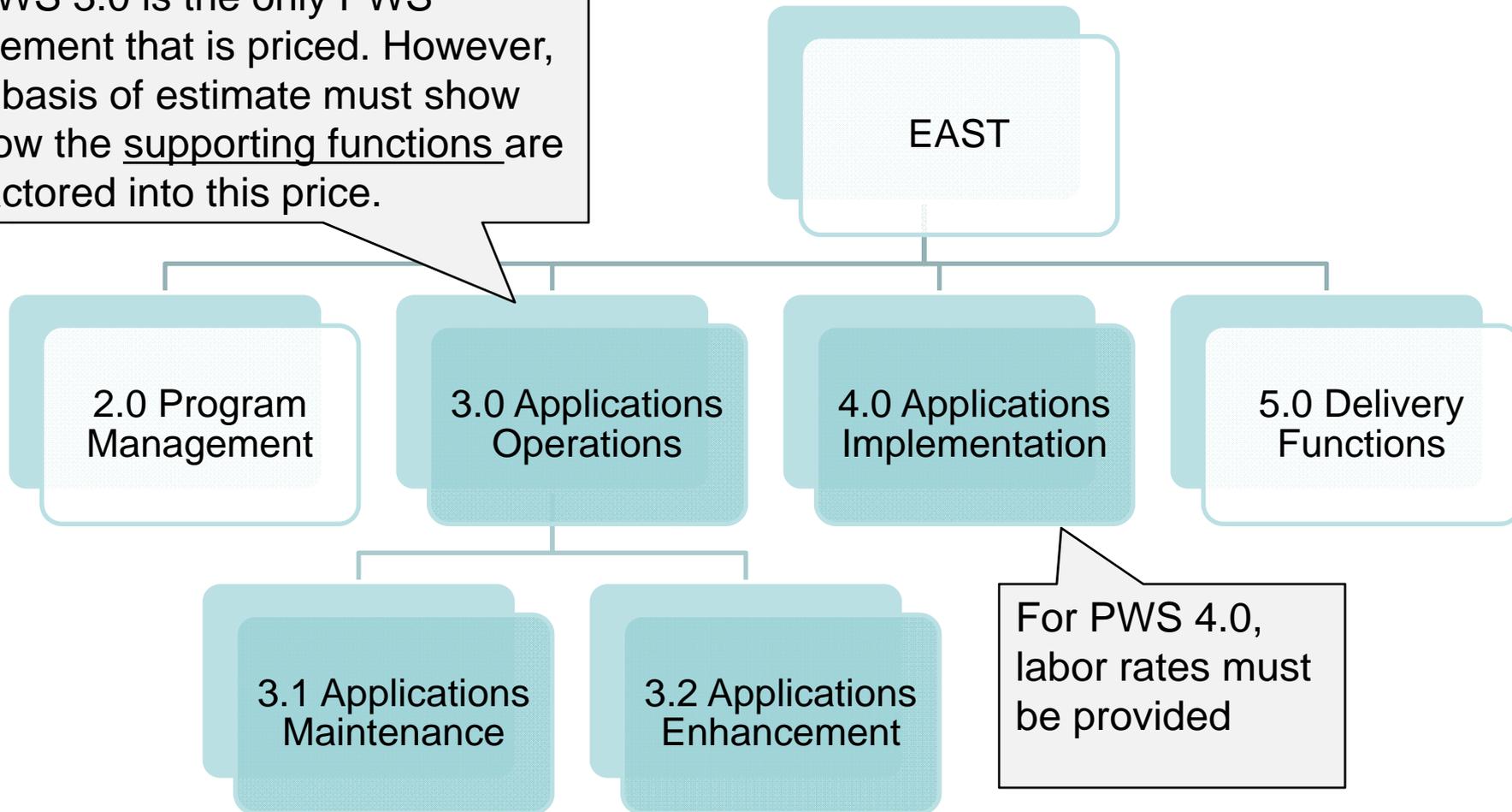
PWS 4.0 represents **services** that are ordered via ID/IQ and that occur outside the NEACC factory



# PWS Pricing Overview

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PWS 3.0 is the only PWS element that is priced. However, a basis of estimate must show how the supporting functions are factored into this price.

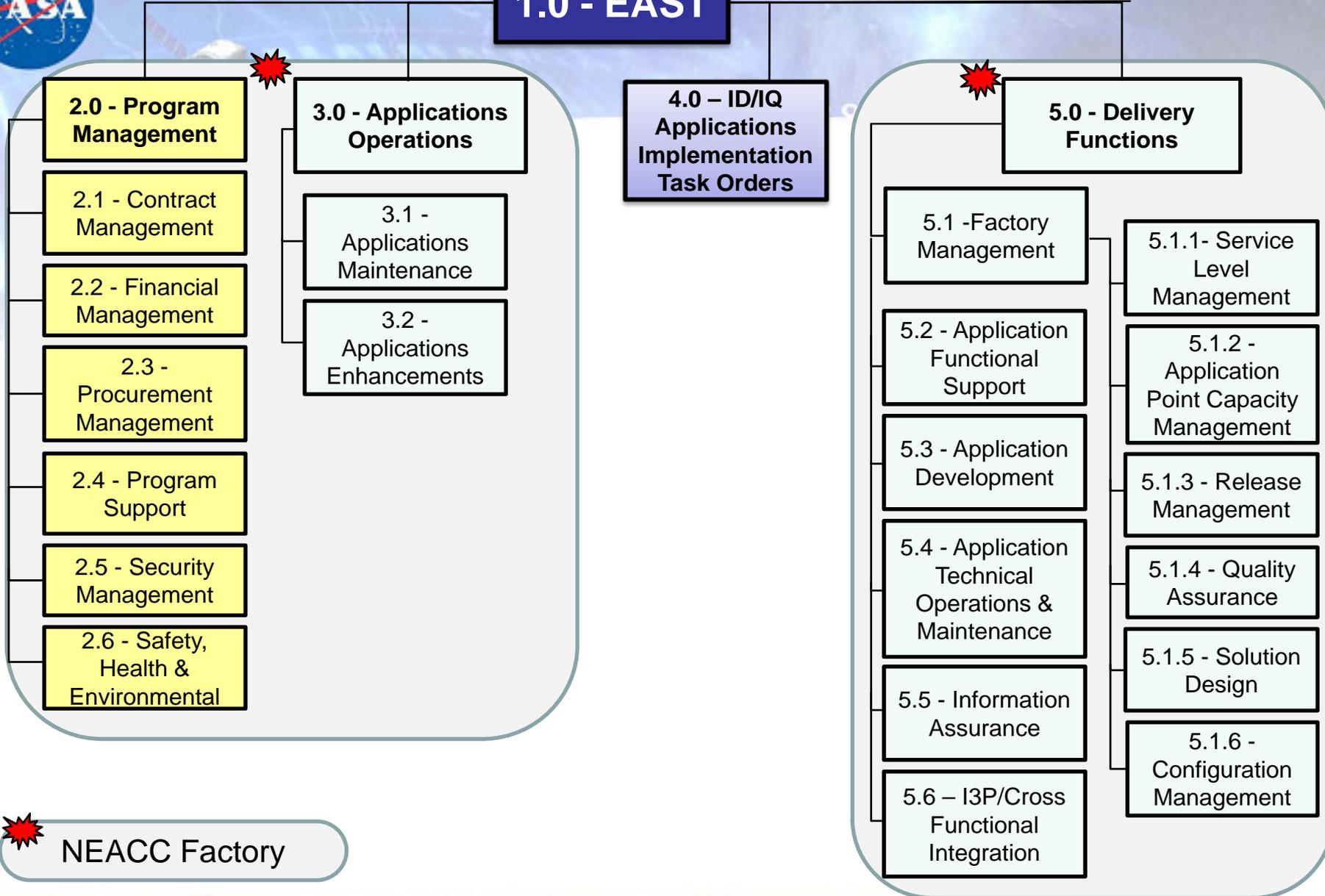


For PWS 4.0, labor rates must be provided

# Performance Work Statement (PWS) Structure



## 1.0 - EAST



 NEACC Factory



# Contracting Approach

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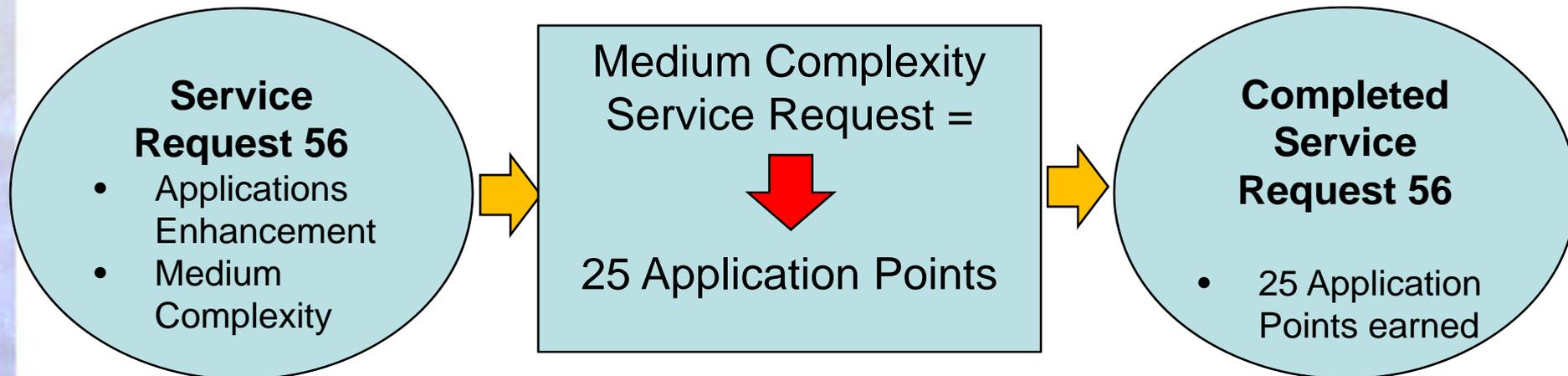
- Firm Fixed Price (FFP) Contract with FFP Indefinite Delivery/Indefinite Quantity (ID/IQ) Portion
  - FFP for Applications Maintenance (PWS 3.1) and Applications Enhancement (PWS 3.2)
  - FFP ID/IQ Task Orders for Applications Implementation work (PWS 4.0)
  - Program Management (PWS 2.0) and Delivery Functions (PWS 5.0) are not separately priced
- Price Deductions for Failure to Meet Service Level Standards
- Volume of work is bounded by upper and lower limits
  - Applications Maintenance (PWS 3.1) bound by an annual Upper and Lower Limit
  - Applications Enhancements (PWS 3.2) bound by a monthly Upper and Lower Limit



# Service Request to Application Point Model

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- Service requests represent the core unit of work delivered by the NEACC factory
- Challenge: How do you translate completed service requests into quantifiable units of work for the purposes of an FFP contract, when service requests come in all shapes and sizes?
- Solution: Convert service requests into Application Points based on service request complexity factors





# Application Points

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- Application Points offer a method for representing the complexity of a service request and for measuring the realized value of the work performed to complete the request
  - Points are assigned based on Complexity Factors of Low, Medium, and High, as well as “Master Data”

Complexity Factor	Short Description *	Application Points
Low	Request is readily understood, requires isolated changes, does not impact other objects or require multiple skill sets	10
Medium	Request requires investigation, touches multiple components, impacts other objects, requires multiple skills sets	25
High	Request requires major investigation, major planning across multiple skill sets, large numbers of impacted components, lengthy integration testing required	50
Complexity Factor	Short Description *	Application Points
Master Data / Job Request	Request to add or modify master data or to complete a job request.	1

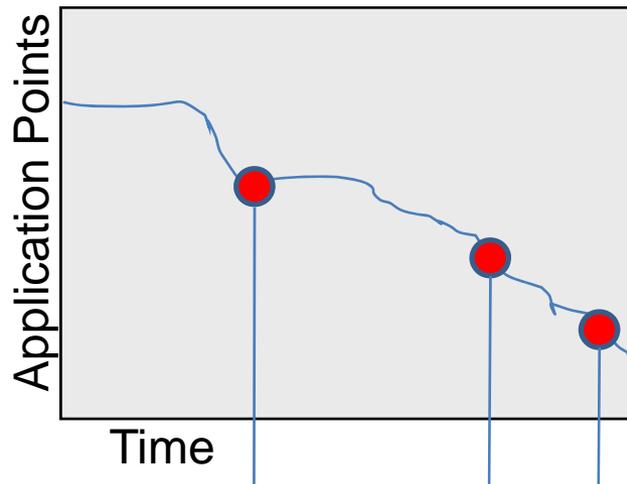
\* See Attachment J-6, Application Point Requirements for full description



# Application Point Burn Down

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Application Point Burn Down Chart



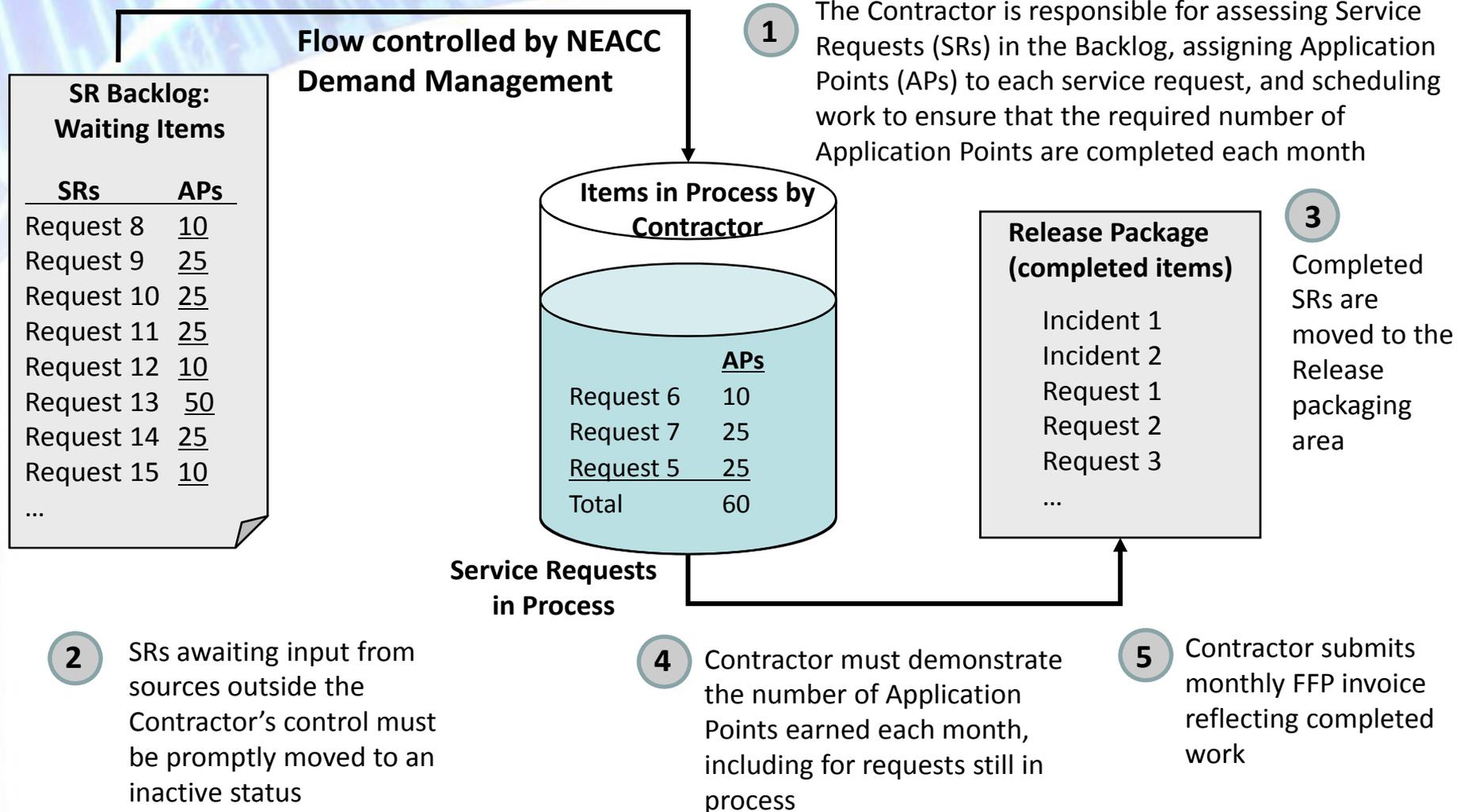
Application Point Burn Down rate reflects the rate at which Application Points are converted into working functionality (realized value) and are considered complete for billing purposes. The Burn Down rate is also a reflection of the Contractors available capacity.



# PWS 3.2

## Application Point Operating Model Example

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# PWS 3.2

## Application Point Operating Model Dealing with Fluctuations in Demand

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**More Demand**

SRs	APs
Request 8	<u>25</u>

**URGENT REQUEST !!**

APs	
Request 6	10
Request 7	25
Request 5	25
<b>Total</b>	<b>60</b>

**Additional Resource Charge (ARC)**

15 Additional Points	
Request 8	<u>25</u>

Government may consume additional points at a Unit Price established in the contract

**Temporary bump up in capacity of 15 additional points**

Band Size:  
Lower Limit = 50  
Upper Limit = 70

**Less Demand**

<b>Backlog is temporarily empty</b>
-------------------------------------

APs	
Request 6	10
Request 7	25
<b>Total</b>	<b>35</b>

**Reduced Resource Credit (RRC)**

**Monthly earned total falls below Lower Limit by 15 points**

Government receives credit, based on the Unit Price, for points not completed



# PWS 3.2

## ARCs and RRCs

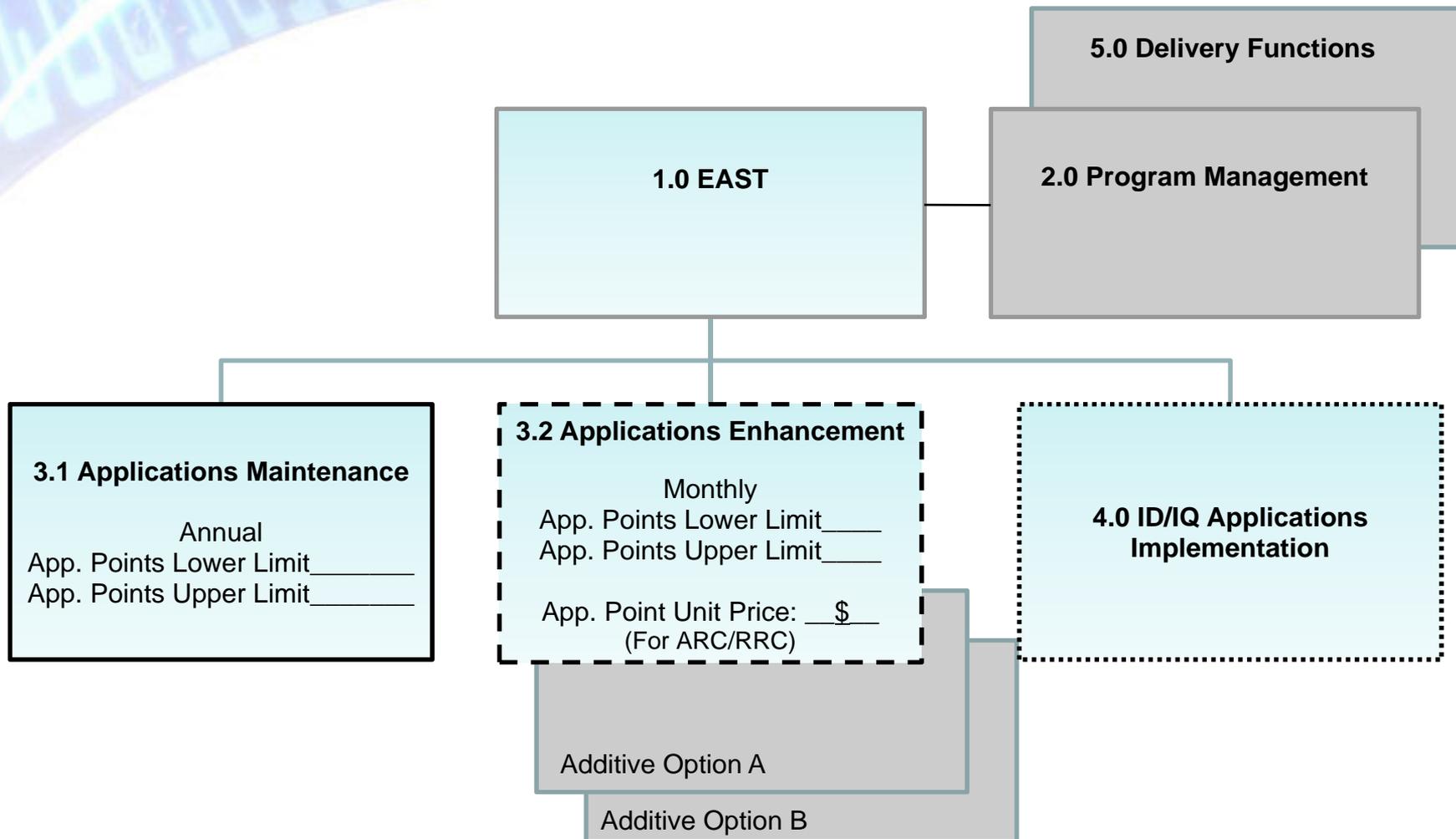
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- The Government may consume Additional Resource Charges (ARCs) to accommodate short-term intervals of peak demand
- ARCs are calculated as follows:
  - Determine the quantity of Application Points completed for the month beyond the Upper Band Limit
  - Multiply the resulting number by the Application Point Unit Price
- The Government receives a Reduced Resource Credit (RRC) when the monthly quantity of completed Application Points is below the Lower Band Limit
- RRCs are calculated as follows:
  - Subtract the quantity of completed Application Points from the Lower Band Limit to determine the shortfall
  - Multiply the resulting number by the Application Point Unit Price
- The Contractor must track ARCs and RRCs and apply them to the monthly invoice



# PWS Overview

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# Use of Contract Options

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- The EAST contract utilizes the following contract options:
  - Two (2) Options to extend the contract Period of Performance up to five (5) years --- Option 1 and Option 2
  - Two (2) Options for increasing the quantity of the PWS 3.2 Application Point band --- Option A and Option B
- Options 1 and 2 to Extend the Period of Performance
  - Government to analyze Contractor performance against Service Level Standards, Option Decision Package, and other criteria
- Options A and B to Increase the Quantity of the PWS 3.2 Band
  - Government to analyze likelihood for long-term demand increases
- All necessary option clauses and provisions will be included in solicitation and contract. Evaluation will assume exercising all options.



# Proposal Pricing Overview

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- PWS 3.1 – Applications Maintenance – Firm-Fixed Price with Basis of Estimate showing how the following are factored into the price
  - PWS 2.0 – Program Management
  - PWS 5.0 – Delivery Functions
  - Support for each of the NEACC Lines of Business
- PWS 3.2 – Applications Enhancement
  - FFP for 3.2 base monthly Application Point band
  - FFP for Application Point Unit Price (ARC/RRC)
  - FFP for Option A and Option B monthly 3.2 band increase
  - Basis of estimate showing how the following are factored into the price:
    - PWS 5.0 – Delivery Functions
    - Support for each of the NEACC Lines of Business
- PWS 4.0 – ID/IQ Applications Implementation Task Orders
  - Labor rate pricing



# EAST Service Level Standards

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- Service Level Standards are defined in RFP Attachment J-4
  - J-4A - Service Level Method
    - Defines responsibilities and the procedures for calculating Price Deductions for Failure to Meet Service Levels
    - Establishes maximum monthly percentage of Price that can be deducted: 60%
  - J-4B - Service Level Matrix
    - Defines Minimum and Expected Service Level Targets for all Critical Service Levels and all Key Performance Indicators
    - Establishes Price Deduction Percentage allocated to each Service Level
    - Service Levels include 90% specific performance measures and 10% customer satisfaction rating
  - J-4C - Service Level Surveillance Plan
    - Describes each Critical Service Level and Key Performance Indicator
    - Defines the measurement approach for each Service Level



# EAST Service Level Matrix

**\*\*EXAMPLE\*\***

Price deductions are based on the percentage allocated to each Critical Service Level (CSL)

Failure to meet all ESLs results in a maximum **30%** price deduction

Failure to meet all MSLs results in the maximum **60%** price deduction

Total Category Allocation Pool		100%	Allocated					
Maximum Monthly Price Deduction for Failure to Meet CSL Standards		60%						
Description		CSL Category Allocation %	Measurement Window	CSL Item Allocation %	Expected Service Level (ESL)	Failure to Meet ESL Price Deduction	Minimum Service Level (MSL)	Failure to Meet MSL Price Deduction
<b>1</b>	<b>Program Management - PWS 2.0</b>	10%		100%				
1.1	NEACC Satisfaction Rating		Monthly	100%	4.5	3.00%	3.5	6.00%
<b>2</b>	<b>Applications Maintenance - PWS 3.1</b>	65%		100%				
2.1	Critical Application Availability		Monthly	10%	99.00%	1.95%	98.00%	3.90%
2.2	Customer Satisfaction on Ticket Closure		Monthly	5%	4.85	0.98%	4.20	1.95%
2.3	Application Security Compliance		Monthly	5%	100.00%	0.98%	99.00%	1.95%
2.4	Support Application Availability		Monthly	5%	95.00%	0.98%	90.00%	1.95%
2.5	Incident Closure - Complete CMDB		Monthly	5%	99.00%	0.98%	98.00%	1.95%
2.6	Incident Resolution Time		Monthly	0%		0.00%		0.00%
2.6.1	Q1 - Severity 1 - Resolved w/n 4 Hours		Monthly	10%	95.00%	1.95%	90.00%	3.90%
2.6.2	Q2 - Severity 1 - Resolved w/n 8 Hours		Monthly	7.5%	100.00%	1.46%	95.00%	2.93%
2.6.3	Q3 - Severity 2 - Resolved w/n 8 Primary Business Hours		Monthly	7.5%	95.00%	1.46%	90.00%	2.93%

\*\*See Attachment J-4B, Service Level Matrix for all Service Levels

All measures are based on a monthly average



# Relationship to I<sup>3</sup>P and Other Associated Contracts

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- NEACC Applications are presented to end-users via ACES provided devices (e.g., desktops, BlackBerry devices)
- NICS provides Networking services to consumers of NEACC Applications Services
- NEDC provides Data Center services to NEACC and Agency Business Portfolio Manager (Owner of Agency Business Systems)
  - Unit of service is 1) operating system instance 2) storage by terabyte by tier
  - EAST Contractor is responsible for all application-level technical operations maintenance services as defined in Attachment L-B, Background & Historical, PWS 5.4 – Application Technical Operations & Maintenance (ATOM), and PWS 5.5 – Information Assurance
- WEST maintains legacy internal portal & collaboration solutions, while NEACC and EAST are responsible for new Agency Internal Portal & Collaboration capabilities as these are defined
- NSSC Enterprise Service Desk and Enterprise Service Request System provide Tier 1 services for NEACC



# Small Business Goals

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- Small business subcontracting goals will be utilized in order to maximize participation of all small business subcategory types. Evaluation of proposal will reflect proposed goals.

Category	Goal
Small Business (SB)	18.0%
Small Disadvantaged Business (SDB)	8.0%
Woman-Owned Small Business (WOSB)	5.0%
Historically Underutilized Business (HUB) Zone Business	3.0%
Service-disabled Veteran Business (SDVB)	1.5%
Historically Black Colleges and Universities/ Other Minority Institutions (HBCU/OMI)	1.0%



# Source Selection Approach

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- Acquisition approach as set forth in FAR Part 15, Contracting by Negotiation
- **DRAFT** Evaluation Subfactors -
  - Mission suitability subfactors will be limited to four:

<b>Suitability Subfactor</b>
Management and Staffing Approach
Technical Approach
Safety, Health and Environment (SHE)
Small Business Utilization



# Management and Staffing Approach

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- DRAFT Subfactor 1 - Management and Staffing Approach
- MA1 Management Strategy / Organizational Structure
- MA2 Key Positions / Key Personnel
- MA3 Staffing Approach
- MA4 Compensation and Retention
- MA5 Phase-In
- MA6 I<sup>3</sup>P Integration Approach
- MA7 Management and Staffing Approach Risk Assessment



# Technical Approach

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- DRAFT Subfactor 2 - Technical Approach
- TA1 Sustaining Factory Operations
- TA2 Improving Service Levels & Efficiencies
- TA3 Factory Management
- TA4 Application Functional Support
- TA5 Infrastructure Optimization
- TA6 Information Assurance
- TA7 Maintenance and Optimization of Key Platforms
- TA8 Sample ID/IQ Task Order
- TA9 Technical Approach Risk Assessment



# Safety and Small Business

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- DRAFT Subfactor 3 - Safety, Health and Environmental
  - SH1 Workplace Safety
  - SH2 Safety, Health and Environmental Risk Assessment
- DRAFT Subfactor 4 - Small Business Utilization Subfactor (SB)
  - SB1 Small Business Subcontracting
  - SB2 Small Disadvantaged Business (SDB) Participation
  - SB3 Small Business Utilization Risk Assessment



# Security Considerations

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- The EAST RFP includes extensive I<sup>3</sup>P-wide IT Security Requirements as defined in **Appendix J-1A, Cross Functional Requirements, Section 6, Common Information Technology Security Requirements**
- Application-specific security requirements are further defined in **Attachment J-1, EAST PWS**



# Data Requirements Description (DRD) – Delivery Summary

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- DRDs due with initial proposal:
  - Application Point Capacity Management Plan
  - Safety, Health, and Environmental (SHE) Plan
- DRDs due during Phase-In:
  - Badged Employee and Remote IT User Listing
  - Position Risk Designation for Non-NASA Employee
  - Software Engineering Quality Plan
- DRDs due after Full Contract Assumption (subset):
  - Release and Deployment Management (RDM) Plan
  - Service Level Metrics Report
  - Configuration Management Database (CMDB) Report
  - Incident Management (IM) Report
  - Monthly Progress Report



# Electronic Reading Room

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- Documentation available on:
  - EAST website:  
[http://ec.msfc.nasa.gov/apt/portal\\_acqDetails.php?acqNum=2](http://ec.msfc.nasa.gov/apt/portal_acqDetails.php?acqNum=2)
  - I3P website:  
<http://I3P.nasa.gov>
- Background & Historical Reading Room
  - NEACC service request backlog reports
  - Historical service level reports
  - Enterprise Landscape documents
  - Other Supporting Information
    - NEACC Release Management Plan
    - NEACC Governance Processes
    - Other documents



# Technical/Procurement Personnel

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- Technical Point of Contact
  - Amy Stapleton
  - Amy.Stapleton@nasa.gov
- Procurement Point of Contact
  - Vann Jones
  - Vann.Jones@nasa.gov