



# **DoD EVM POLICY**

IPMR Update and Industry Reviewer Role

Mr. John McGregor
PARCA Deputy Director for EVM

John McGahan Jen Horner







- ▶ Today's List
  - A Few Thoughts from PARCA EVM
  - EVM-CR Industry Reviewer Role
  - IPMR Update



# Director, Performance Assessments and Root Cause Analyses (PARCA) Mr. Gary R. Bliss

OSD EVM
Policy Holder

Nunn McCurdy Breach Analysis Program
Assessments
and DAES
Selection

**Analysis Team** 

Mr. John McGregor

Deputy Director for Earned Value Management Mr. Dave Cadman

**Deputy Director for Root Cause Analyses** 

Dr. Peter Eggan

Deputy Director for Performance Assessments Dr. Philip Anton

Deputy Director for Acquisition Policy Analysis Center

PARCA was brought into existence via the reforms in the Weapon Systems Acquisition Reform Act (WSARA) of 2009





#### **PARCA EVM Division**

# The EVM Division of PARCA is responsible and accountable for EVM performance, oversight, and governance across the Department

Policy and Guidance

EVM Competency

Program Interface

EVM Central Repository

Communications and Outreach

Develop, publish, and maintain DOD policy and guidance on EVM

THE AMERICAN SECURITY OF SECURITY SECUR

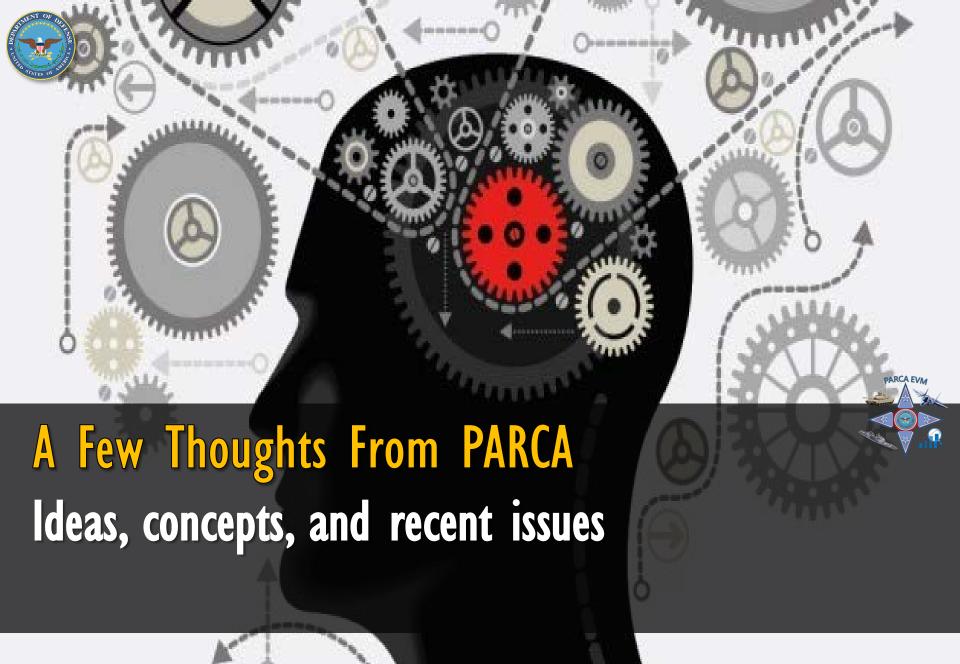
Serve as DoD EVM
Functional Lead to
influence EVM
competency
requirements;
Coordinate with
Defense Acquisition
University (DAU)

Review and approve
EVM data requirements
for MDAP programs in
coordination with
Services and Defense
Agencies;
Resolve interpretive
differences in EVM
policy, practice, and
requirements

Responsible for the Earned Value Mgt
Central Repository (CR) and maintenance of CR data alignment with the Acquisition
Visibility framework;
Report EVM data compliance, integrity, and quality to AT&L

Maintain communications with Government and Industry on EVM policy











▶ The intent of this role is to provide industry corporate focal points to reporting compliance and data quality reports as well as submissions delivered to the EVM-CR by data managers within the organization.

- ▶ The following document provides step-by-step illustrations of access available for Industry Reviewers.
  - Obtaining an ECA Certificate
  - Creating a CADE Portal Account
  - Access Submissions, Program Status and Data Quality Reports



## **Certificate Requirements**

▶ All users are required to have a valid CAC (Common Access Card) or ECA (External Certificate Authority) Certificate in order to establish an account on the CADE Portal

# We also accept certificates issued by the following industry partners:

Boeing

Raytheon

Lockheed Martin

Northrop Grumman

Booz Allen Hamilton

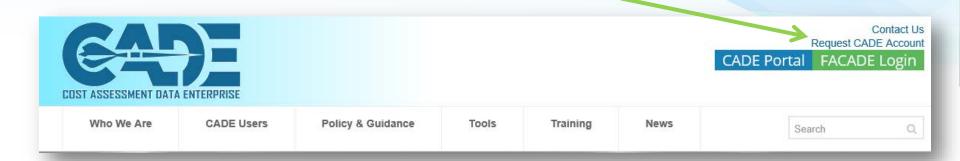
- ▶ The type of ECA Certificate required is a Medium Token Assurance Identity Certificate.
- ▶ To locate approved certificate vendors, visit the ECA PKO Program Website at

http://iase.disa.mil/pki/eca/Pages/index.aspx



#### **Creating An Account**

▶ To request access to the CADE Portal, first go to <a href="http://cade.osd.mil/">http://cade.osd.mil/</a> and choose the option to Request CADE Account as shown below:



Please contact us at <u>CADESupport@Tecolote.com</u> if you already have a CADE Portal account and require the EVM Submitter role added to your user profile.





## **Accessing the EVM-CR Website**

Once access is approved, log in to the CADE Portal and click the EVM-CR application link to access the EVM Central Repository







**EVM-CR** Industry Role

# **MY CONTRACTS**





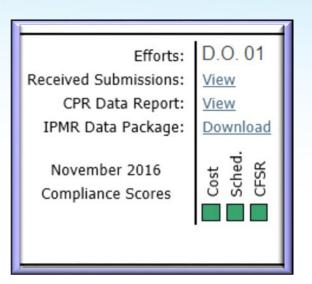


The my contracts page will provide a comprehensive listing of all contracts covered by your NDA letter. You can use the optional filters to find your desired contract

My Contracts					
Contract Filters Contract Nun	nber		Service	TACA	
Contractor Commodity G	roup	~	☐ AIR FORG		ID A IC B
✓ Only Currently Reporting			☐ NAVY		IAM C
			□ DOD		IAC NA
			☐ MDA		п
Hide Options Clear Filters Apply Filters  N00000-01-A0001					III
Program: ABC Program	Efforts:	D.O. 01	D.O. 02	D.O. 03	D.O. 04
Contract Number: N00000-01-A-0001 Contractor - Division: Spacely Sprockets, Rocket Systems		View	<u>View</u>	<u>View</u>	View
I Service: DOD	· I	<u>View</u>	<u>View</u>	<u>View</u>	<u>View</u> Not Available
Commodity Group: Rocket ACAT: IA DAES Group: A	IPMR Data Package: November 2016 Compliance Scores	Cost Sched.	Cost Sched.	Cost Sched.	Cost Sched.



## **My Contracts; Navigation**



- Received Submissions: access a list of all submissions delivered for a given contract.
- CPR Data Report: access a grid view of electronic cost performance data extracts and optionally view the Performance Over Time Chart.
- IPMR Data Package: Download a zipped collection of cost performance and schedule files as well as program milestones.
- **Compliance Scores**: Provides consolidated reporting compliance ratings for Cost performance, Schedule and CFSR deliveries for the month displayed.

NOTE: The month displayed coincides with the report date, not when the reports were delivered to the EVM-CR.





#### **Received Submissions**

# To access your desired submission, click on the submission ID number





Submission ID	Report Category(s)	<u>Effort</u>	Contains Admin Files	Report Date	<u>Submission Date</u>	Status Date	<u>Status</u>
66343		Edit test 1	No			11/17/2016	Submitting
66303	Electronic Cost	Edit test 1	No	11/15/2016		11/16/2016	Submitting
66302	Electronic Cost	Edit test 1	No	10/2/2016		11/16/2016	Submitting
66236	Human Readable Cost	Edit test 1	No	9/30/2016		11/14/2016	Submitting

#### STATUS DEFINITIONS

**Submitting**: Not yet delivered or returned to submitter for correction

**Pending**: Submitted and awaiting program office review

**Published**: Accepted by the program office or auto-published by the system after the 10 day review window.

Rejected: Program office has rejected submission. Likely required to resubmit.

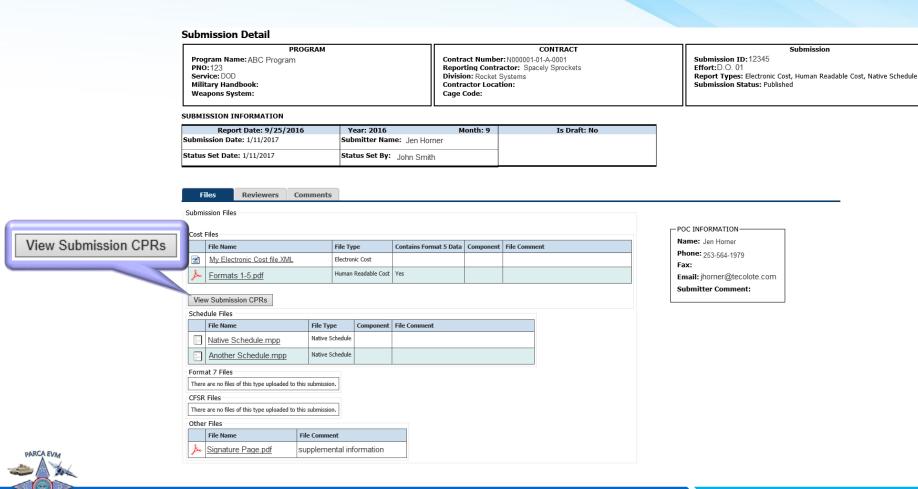
Coordination with program office needed.





#### **Submission Detail**

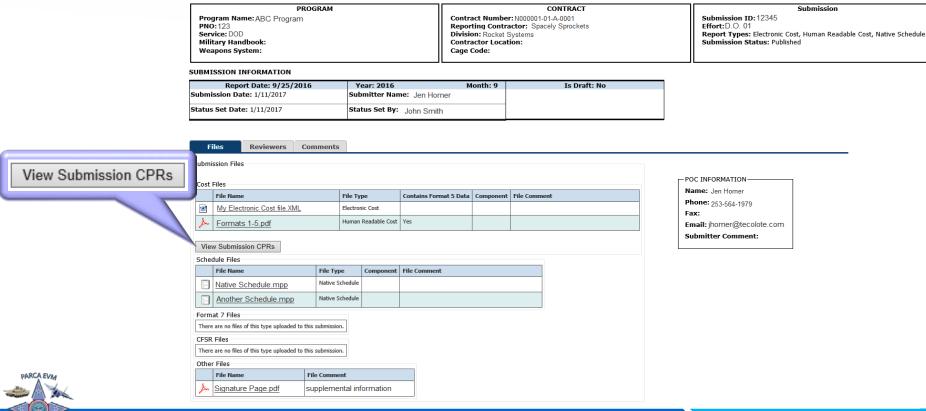
Click file name to download specific files. Click View Submission CPR to view data extracts from the Electronic Files.





#### File Download and Data Extract

Click file name to download specific files. Click View Submission CPR to view data extracts from the Electronic Cost Performance Files as well as Performance Over Time Chart and Data Quality Validation Report



**Submission Detail** 



#### **Data Extracts and Charts**



Report From: 11/1/2016 To: 11/30/2016

Source Data Type

Source: XML\_wInsight

Data Quality Validation

Performance Over Time

		_		
J	Program Name	Ph	Contract Number	Contract Type
	ABC Program	Prod	N0001-01-A-0001	FPIF&CPIF
	Contractor	Maximum WBS Level	CPR ID	Final CPR
	Spacely Sprockets	7	15732	Yes Remove Final Cl

1. <u>Download</u> Data Quality Validation Report 2. <u>Download</u> Performance Over Time Chart

Dollars in Thousands Orignal NCC Quantity Share Above \$1,000,000 \$1,000,000 Contract Ceiling **Estimated Ceiling** \$1. \$1,300,000 \$1,300,000 Most Likely EAC Target Price \$1,100,000 \$1,100,000 \$1,100,000 \$1,100,000 \$1,300,000

#### Variances

At Complete	Cumulative Schedule	Cumulative Cost	Total Schedule	Total Cost
-\$50,000^	-\$70,000 ^	-\$5,000 ^	-\$5,000^	-\$5,000 ^

#### CPR Dates

Contract Start Date	Contract Definitization Date	Planned Completion Date	Contract Completion Date	Estimated Completion Date	
4/30/2015	11/25/2015	5/24/2019	5/24/2019	6/17/2019	

#### Performance Measurement Baseline (PMB)

N	MR	BAC	EAC	BCWS	BCWP	ACWP	CPI	SPI
	5,000	\$150,000	\$1.40,000	\$330,000	\$330,000	\$230,000	0.964 ^	0.671 ^

#### Over Target Baseline (OTB)

OTB Date	BAC Adjustment	SV Adjustment	CV Adjustment	MR Adjustment

#### ^ Calculated Fields

DAMIR Validation Failures

lhere are no DAMIR validation failures in this submission.

ata Validation Warnings

anagement Reserve must equal TAB - PMB BAC

3. Cells contributing to Data Quality issues will be colored in RED as shown here.

4. Data Quality Validation Issues will be displayed in RED at the bottom of the page.

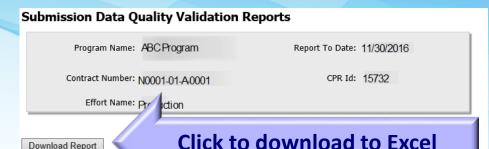


# **Data Quality Validation Report**

The Data Quality Validation
Report displays a list of all data
quality checks that are done on
the Electronic Cost Performance
file when uploaded to the EVMCR.

- Indication of Pass or Fail for each check.
- Optionally download report to Excel

\* This report is also available to Data Managers during the submit process.



Data Validation Popor

Description	Source	Passed	Failed
Share Above (Contractor Share) between 0 and 100	DAMIR	х	
Share Below (Contractor Share) between 0 and 100	DAMIR	x	
Report Period From is required	DAMIR	х	
Report Period From must be on or before Report Period To	DAMIR	x	
Completion Date must be on or After Start Date	DAMIR	x	
Estimated Completion Date Must be on or After Start Date	DAMIR	x	
Planned (Budget) Completion Date must be on or after Start Date	DAMIR	х	
OTB Date must be on or before Report Period To (or report created date)	DAMIR	x	
Management Reserve must be greater than or equal to 0	DAMIR	x	
Quantity must be greater than or equal to 0	DAMIR	х	
PMB BAC must be less than or equal to TAB	DAMIR	х	
Contract Ceiling price must be greater than or equal to Target Price	DAMIR	х	
Estimated Contract Ceiling must be greater than or equal to Estimated Price	DAMIR	x	
Target Price must be greater than or equal to NCC	DAMIR	x	
Best Case EAC must be less than or equal to Most Likely EAC	DAMIR	x	
Worst Case EAC must be greater than or equal to Most Likey EAC	DAMIR	x	
Best Case EAC must be less than or equal to Worst Case EAC	DAMIR	x	
PMB Cumulative BCWS must be less than or equal to PMB BAC	DAMIR	x	
PMB Cumulative BCWS must be less than or equal to TAB	DAMIR	x	
PMB Cumulative BCWP must be less than or equal to PMB BAC	DAMIR	X	
PMB Cumulative BCWP must be less than or equal to TAB	DAMIR	x	
Authorized Unpriced Work must equal CBB - NCC	DAMIR	Х	
Management Reserve must equal TAB - PMB BAC	DAMIR		Х
PMB Cumulative BCWS must be greater than or equal to 0	DAMIR	Х	



#### **Performance Over Time Chart**



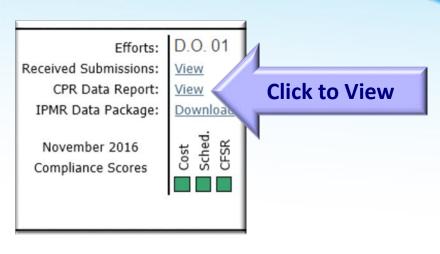
The **Performance Over Time Chart** displays PMB values for all reports received on an effort.

Large squares indicate PMB values for selected report.

\* This report is also available to Data Managers during the submit process.



## **CPR Data Report**



Download to Excel Report Data Issue View Performance Over Time Chart

Program: ABC Program Contract: N0001-01-A-0001 Effort: Production

The CPR Data Report displays a grid view of Level 1 data extracted from the electronic cost performance files delivered for the selected effort.

#### **Optionally:**

- Download report to Excel
- Report a Data Quality Issue
- View the Performance Over Time Chart

Month	Year	Report Date	Report From	Contract Start Date	Contract Definitization Date	Completion Date	Estimated Completion Date	Planned Completion Date	Quantity	Share Above	Share Below	Original NCC	NCC	Most Likely EAC	Best Case EAC	Worst Case EAC
Apr	2014	4/27/2014		3/18/2014	3/18/2014				1			1,000,000	1,000,000			
May	2014	5/25/2014	4/28/2014	3/18/2014	3/18/2014	8/30/2017	8/25/2017	12/31/2017	1	50	50	1,000,000	1,000,000	1,200,000	1,100,000	1,500,000
Jun	2014	6/29/2014	5/26/2014	3/18/2014	3/18/2014	8/30/2017	8/25/2017	12/31/2017	1	50	50	1,000,000	1,000,000	1,200,000	1,100,000	1,500,000
Jul	2014	7/27/2014	6/30/2014	3/18/2014	3/18/2014	8/30/2017	8/25/2017	12/31/2017	1	50	50	1,000,000	1,000,000	1,200,000	1,100,000	1,500,000
Aug	2014	8/31/2014	7/28/2014	3/18/2014	3/18/2014	8/30/2017	8/25/2017	12/31/2017	1			1,000,000	1,000,000	1,200,000	1,100,000	1,500,000
Sep	2014	9/28/2014	9/1/2014	3/18/2014	3/18/2014	8/30/2017	8/25/2017	12/31/2017	1	50	50	1,000,000	1,000,000	1,200,000	1,100,000	1,500,000
Oct	2014	10/26/2014	9/29/2014	3/18/2014	3/18/2014	8/30/2017	8/25/2017	12/31/2017	1	50	50	1,000,000	1,000,000	1,200,000	1,100,000	1,500,000
Nov	2014	11/30/2014	10/26/2014	3/18/2014	3/18/2014	8/30/2017	8/25/2017	12/31/2017	1	50	50	1,000,000	1,000,000	1,200,000	1,100,000	1,500,000
Dec	2014	12/28/2014	11/30/2014	3/18/2014	3/18/2014	8/30/2017	8/25/2017	12/31/2017	1	50	50	1,000,000	1,000,000	1,200,000	1,100,000	1,500,000
Jan	2015	1/25/2015	12/28/2014	3/18/2014	3/18/2014	8/30/2017	8/25/2017	12/31/2017	1	50	50	1,000,000	1,000,000	1,200,000	1,100,000	1,500,000
Feb	2015	2/22/2015	1/25/2015	3/18/2014	3/18/2014	8/30/2017	8/25/2017	12/31/2017	1	50	50	1,000,000	1,000,000	1,200,000	1,100,000	1,500,000
Mar	2015	3/29/2015	2/22/2015	3/18/2014	3/18/2014	8/30/2017	8/25/2017	12/31/2017	1	50	50	1,000,000	1,000,000	1,200,000	1,100,000	1,500,000
Δnr	2015	4/26/2015	3/29/2015	3/18/201₫	3/18/2014	<b>8/3</b> ก/วก17	8/25/2N17	12/31/2017	1	50	50	1 000 000	1 000 000	1 200 000	1 100 000	1 500 000
PARCA	FVa.															

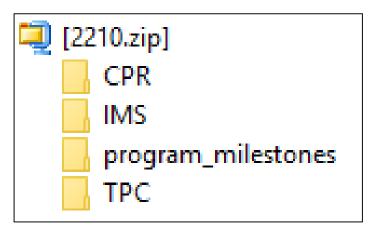


# Efforts: Received Submissions: CPR Data Report: IPMR Data Package: November 2016 Compliance Scores D.O. 01 View View Download Type Stores Download Click to Download

## **IPMR Data Package**

The IPMR Data Package is a zip file which contains:

- UN/CEFACT file for each electronic cost performance data period
- Most recent Format 6
- Most recent Format 7
- Program Milestones



This zipped collection of files can be opened in our IPMR Cost Viewer to view Cost and Program Milestones



\* Download IPMR Cost File Viewer from <a href="http://cade.osd.mil/tools/evm-tools">http://cade.osd.mil/tools/evm-tools</a>



**EVM-CR Industry Role** 

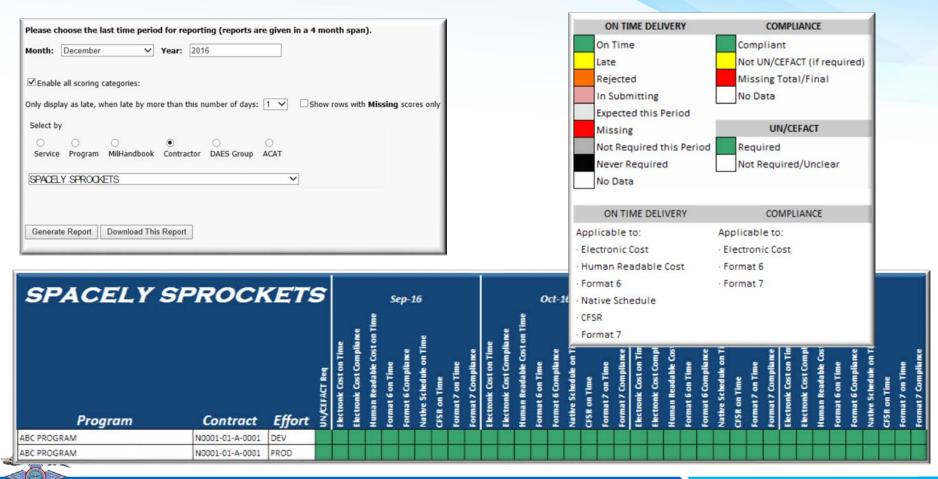
# **EVM-CR COMPLIANCE REPORTS**





#### **Program Status Report**

The **Program Status Report** displays reporting compliance information for the corporation associated with each individual industry reviewer.





**EVM-CR** Industry Role

# **COMMON ISSUES**





## **Industry Reviewer**

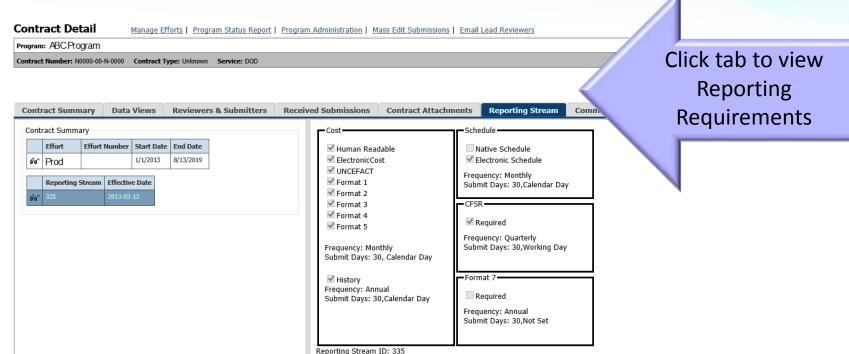
- Yellow rating for Electronic Cost Performance Compliance when UN/CEFACT file is delivered
  - The UN/CEFACT file was not tagged appropriately upon upload as both TOTAL and FINAL
- Red compliance ratings for effort that has not yet started
  - System administrator will need to update the start date for the effort
- Incorrect Report Date provided
  - This causes the report to be credited to the wrong month on the Program Status Report. System administrator will need to correct the report date
     Contact System Administrator:
- ▶ Format 6 vs. Native Schedule
  - The format 6 file is the considered to be XML version of the schedule. Native Schedule is the human readable version of your schedule

CADESupport@Tecolote.com



#### **Reporting Requirements**

- ▶ The reporting requirements for a given effort are established based on the contract CDRL (DD-1423) documents for IPMR and CFSR.
- ▶ To view the requirements for one of your contracts, go to Contract Detail (by clicking on the contract number on My Contracts page) and select the Reporting Stream Page





**EVM-CR** Industry Role

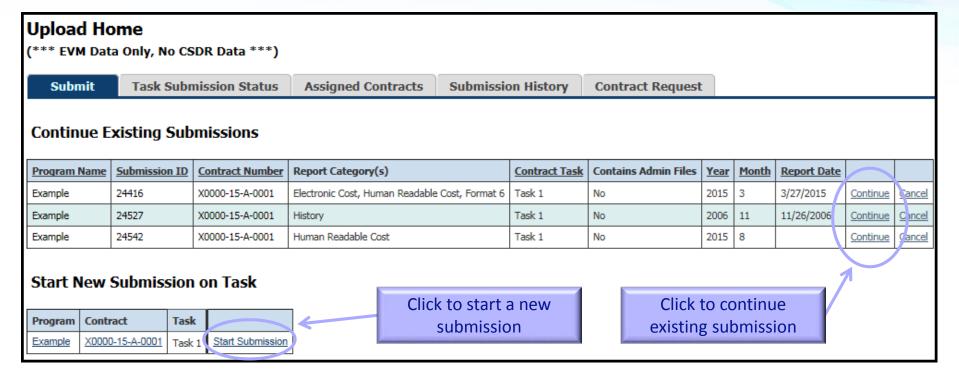
# **UPLOAD HOME**





#### **Upload Home: New Submission**

Data Managers with assigned contracts will access Upload Home to begin a new submission or continue existing submissions within the EVM-CR







#### **Upload Home: Task Submission Status**

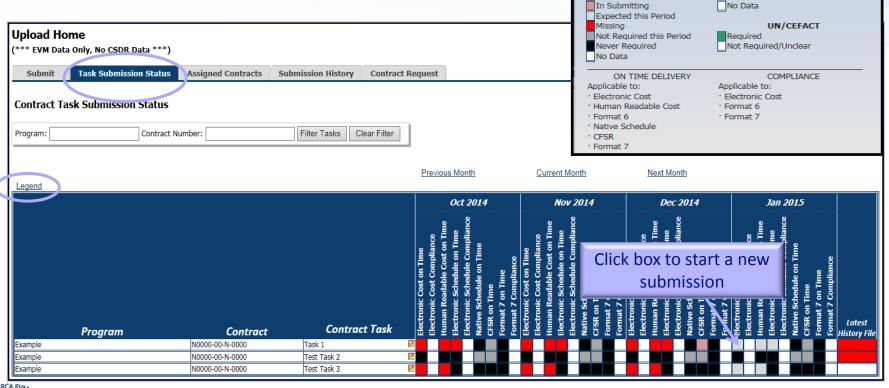
Legend

On Time

Rejected

ON TIME DELIVERY

Data Managers will see a Program Status Report (PSR) view of their assigned contracts on the Task Submission Status tab



COMPLIANCE

Not UN/CEFACT (if required)

Compliant

Missing Total/Final



## **Upload Home: Assigned Contracts**

Data Managers can view a list of contracts where they have been assigned as a Submitter from the Assigned Contracts tab



Click to access Contract

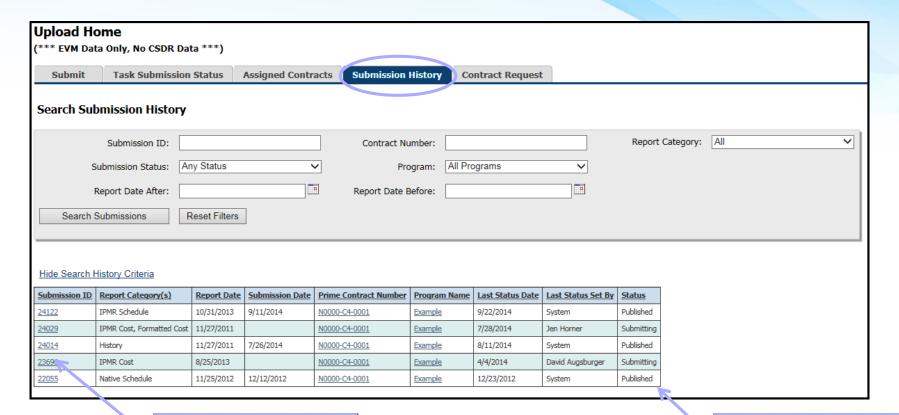
Detail





## **Upload Home: Submission History**

 Data Managers can view a history of all submissions delivered on their assigned contracts from the Submission History tab



Click to access
Submission Detail

**Submission Status** 





#### **Additional Information**

To schedule EVM-CR training for your group, or for EVM-CR related questions, contact:

Jen Horner
PARCA EVM-CR Deputy Lead
jhorner@tecolote.com
(253)564-1979





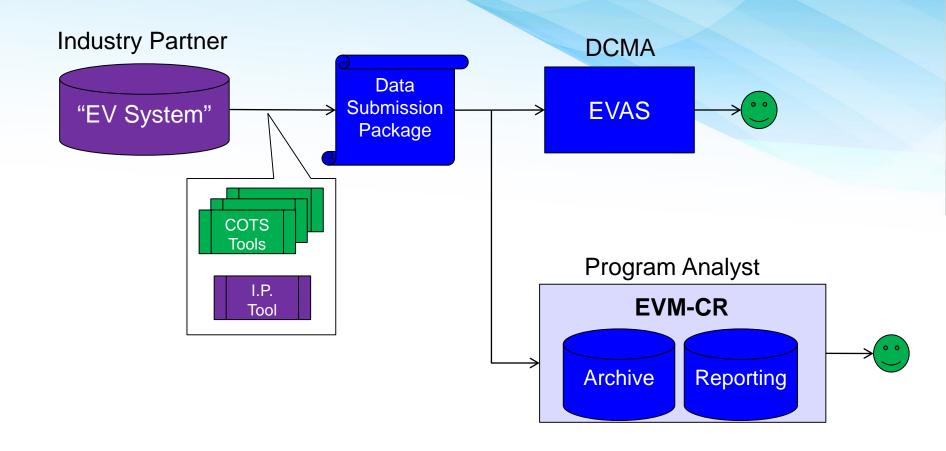


- ▶ Investigate the benefits of removing legacy Format requirements for EVM cost performance data submission
  - Explore concept of data-driven IPMR construct
  - Reduce duplication of data as required in the different formats
  - Improve data quality, visibility, and utility
  - Improve traceability between cost and schedule data
  - Support DCMA needs as part of automated surveillance activities





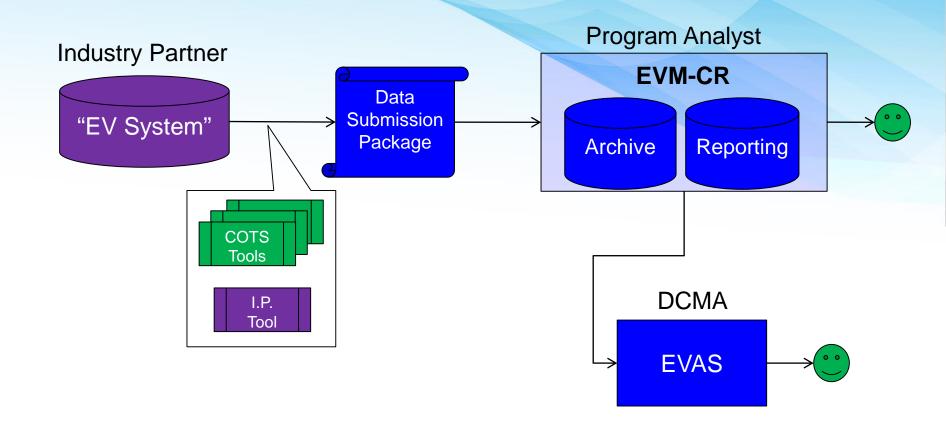
#### **End-State Concept of Operations Goal**







## **End-State Concept of Operations (Potential)**







**IPMR** Update

# DRAFT DATA EXCHANGE STANDARD OVERVIEW





## IPMR, Draft Data Exchange Standard

- PARCA assessed different technologies and approaches for data exchange standards for next generation IPMR
  - Modeled EV-Cost Performance data requirements as a collection of normalized data tables to asses fit to exchange technology
  - Trade-space options: UNCEFACT-XML, Other XML, JSON, etc.
  - Coordinated with NDIA, DCMA, and PARCA technical team to evaluate technology options
- Data Standards Concept: Zipped collection of simple <u>JSON</u> files that encode IPMR cost performance tables from data model
- For completeness and consistency the same approach will be used to update the IPMR Schedule data standard

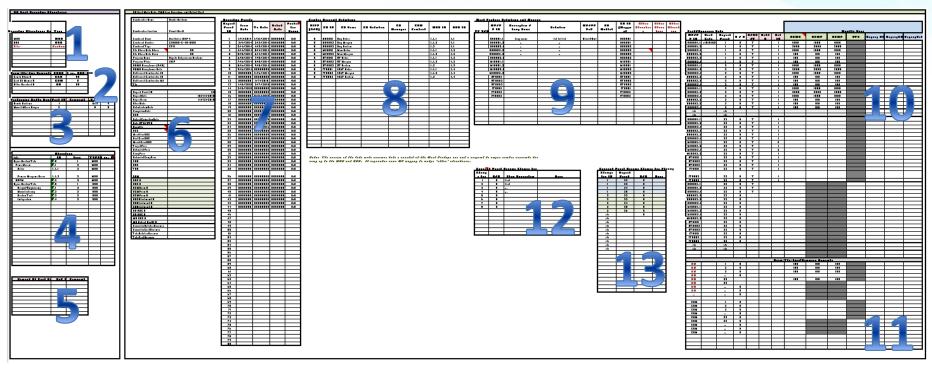




#### **Draft IPMR2-Cost Performance Data Model**

Concept data model tables needed to extend the IPMR Format 7

- Discussed / coordinated with NDIA board and DCMA
  - Transformed into data tables for JSON encoding (e.g., represented as separate worksheets in an Excel workbook)
  - Prepared draft File Format Specification and Data Exchange Instructions







# **Draft Data Model and Exchange Standard**

#### **Data Tables**

1	А
1	IPMR Format 7 Template
2	Version 1.0-alpha
3	
4	Worksheets:
5	Report Configuration
6	Report Metadata
7	Summary Costs (Dollars)
8	Performing Entities
9	Work Breakdown Structure
10	Org. Breakdown Structure
11	Control Accounts
12	Work Packages
13	Reporting Calendar
14	BCWS (To Date)
15	BCWP (To Date)
16	ACWP (To Date)
17	BCWS (To Complete)
18	EST (To Complete)
19	Reprogramming Adjustments
14 -4	IPMR Format 7 Template Info

#### **Exchange Standard**

#### File Format

The file format for an IPMR Format 7 is a ZIP file containing multiple text files. One text file conveys type and version information. All the other text files convey data represented in JSON. Each JSON file corresponds to a single data table.

ZIP File Entries						
Name	Table					
FileType.txt	[N/A]					
ReportConfiguration.json	ReportConfiguration					
ReportMetadata.json	ReportMetadata					
SummaryCosts.json	SummaryCosts					
PerformingEntities.json	PerformingEntities					
WBS.json	WBS					
OBS.json	OBS					
ControlAccounts.json	ControlAccounts					
WorkPackages.json	WorkPackages					
ReportingCalendar.json	ReportingCalendar					
BCWS_ToDate.json	BCWS_ToDate					
BCWP_ToDate.json	BCWP_ToDate					
ACWP_ToDate.json	ACWP_ToDate					
BCWS_ToComplete.json	BCWS_ToComplete					
EST_ToComplete.json	EST_ToComplete					
Reprogramming Adjustments. json	ReprogrammingAdjustments					

#### Conventions

#### **Text File Encoding**

Unless otherwise noted, all text files must be encoded in UTF-8.

#### **Text Normalization**

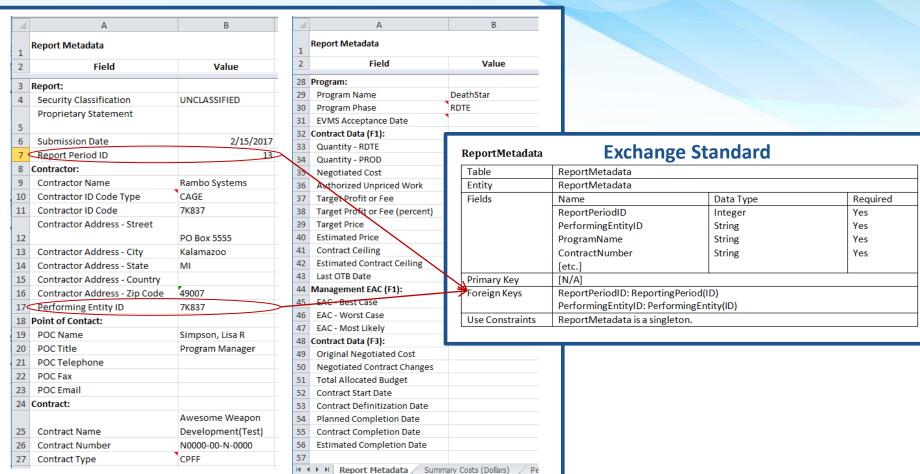
Unless otherwise noted, interpretation of text fields must include the following implicit normalization: whitespace must be removed from the beginning and end of the text, each whitespace character must be replaced by a space character (U+0020), and each sequence of space characters must be replaced by a single character.





# **Draft Data Model and Exchange Standard (Examples)**

#### **Data Tables**





# **Exchange Standard: Sample Encoding**

#### **Schema**

#### JSON Schemas

```
WBS.json

{
    "type": "array",
    "items": {
        "type": "object",
        "properties": {
            "Level": {"type": "integer"},
            "ID": {"type": "string"},
            "Name": {"type": "string"},
            "NonAdd": {"type": "boolean"}
        }
        "required": ["Level", "ID", "Name"]
    }
}
```

#### **Sample Data**

#### **JSON Samples**

```
WBS.json

[
        "Level": 1,
        "ID": "1.0",
        "NonAdd": false
},
        "Level": 2,
        "ID": "1.1",
        "NonAdd": false
},
        "Level": 2,
        "ID": "1.2",
        "NonAdd": false
},
        "Level": 2,
        "ID": "1.2",
        "Name": "Subsystem 1.2",
        "NonAdd": false
}
```



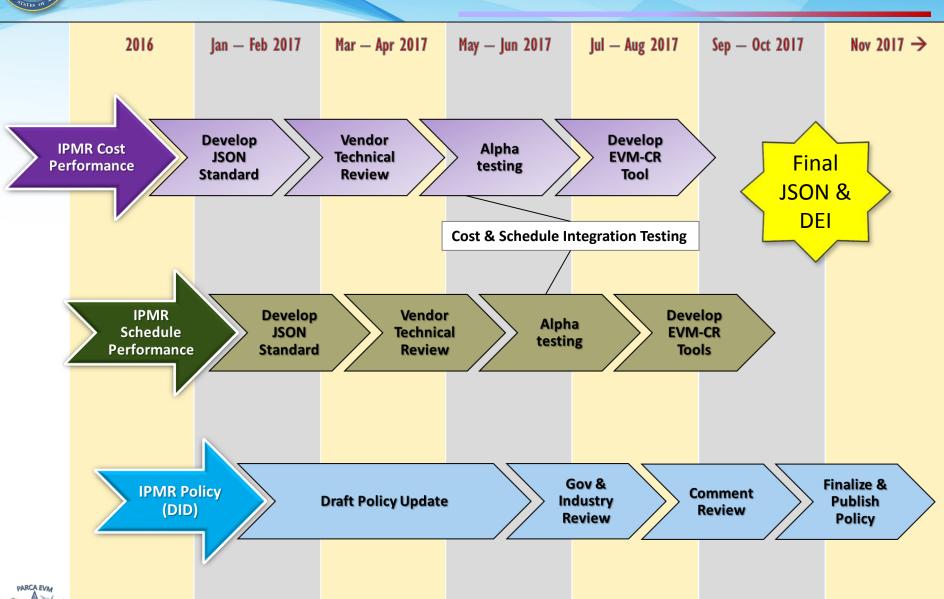


## **IPMR2-Cost Performance Data Exchange Standard Grp**

- Formed 11 Member Team Comprised of Government and Industry Partners
  - Reviewing / comment on initial draft standard
  - Coordinating on responses and adjusting draft standard to address concerns
- In Process
  - Submitted comments/change suggestions: 33
  - Addressed 28 comments with group; 5 open (as of 1/16/2017)



#### **Notional Plan Forward**







- Proposed restructuring of IPMR formats
  - Consolidate Format 1-4 and 7 into a single requirement; remove duplication
  - Transition to reporting single data packages for IPMR Cost Performance,
     Schedule, and Variance Analysis
- More extensive data reporting but based on requirements as defined in the EV SIG
  - Cost performance data at the work package level can be rolled into control accounts and used to derive WBS (Format 1) and OBS (Format 2) data
  - Enables utilization of IPMR for automated surveillance needs for DCMA
- Streamlined Data Exchange Standard improves efficiency and reduces errors







# Questions Contact Us

**PARCA EVM Website:** 

http://www.acq.osd.mil/evm/

PARCA EVM Email: osd.dodevm@mail.mil

# PARCA AEP Program

PARCA Acquisition Exchange Program (AEP) provides a unique career-development experience for high-caliber Government civilians or military personnel interested in acquisition and/or EVM.

http://www.acq.osd.mil/evm/aep.program.html