SAIC's Game Changing Digital Engineering Ecosystem - ReadyOne™

NDIA Conference – October 19th Joe Sopczynski



Approved for Public Release



ReadyOne™ - a Full Function Digital Engineering Ecosystem

Digital Engineering Ecosystem – "A platform that enables stakeholders with the ability to work collaboratively within a digital environment using shared knowledge and resources across the entire Product Development Lifecycle".

Today's Digital Engineering Challenges / Goals:

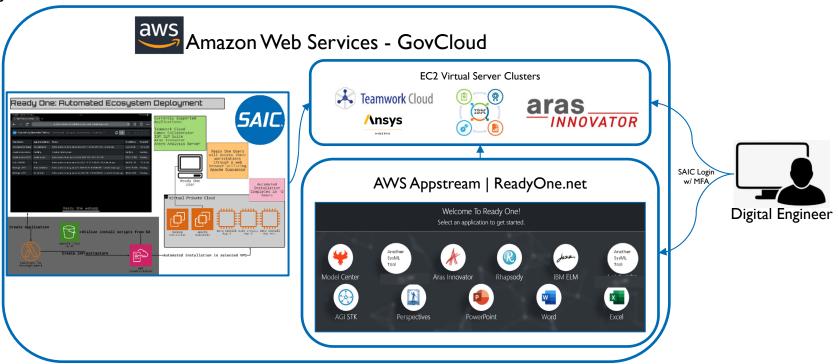
- Provide an open approach by using the best/right tool within in each lifecycle phase
- Provide a seamless, traceable Authoritative Single Source of Truth (ASoT) between this disparate collection of DE Tools
- Provide a team-centric collaboration work environment
- Provide secure ubiquitous 24/7 access anywhere at anytime
- Provide users with access within minutes not days or weeks



ENGINEERING

ReadyOne™ -SAIC's Rapidly Deployable Digital Engineering Ecosystem

- SAIC's ReadyOne™ automated, full lifecycle DE Ecosystem can be deployed on-cloud (Amazon Web Services), as well as native on-premise networks.
- SAIC deploys virtual infrastructure before installing and configuring the DE App Stack to the customer's needs

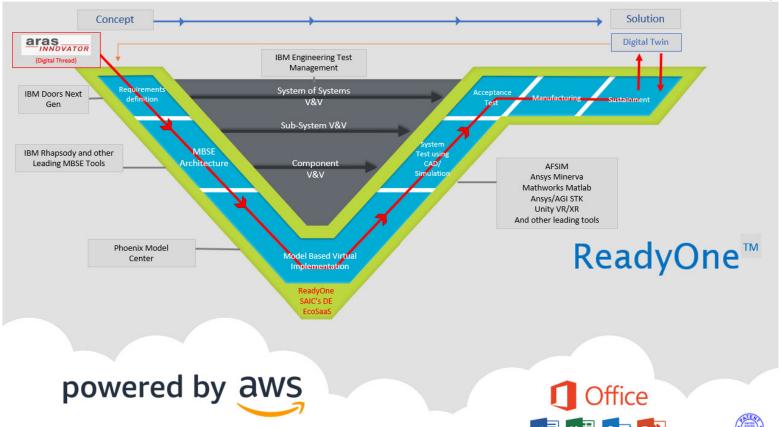




54 Approved for Public Release













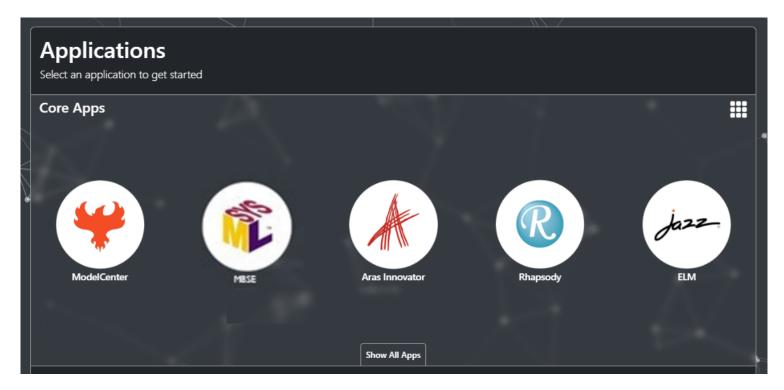








ReadyOneTM Core Applications







ReadyOne - Rapidly Deployable Digital Engineering Ecosystem

ReadyOne Delivers:

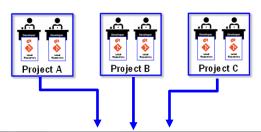
- Open Architecture ReadyOne is tool and database agnostic with the industry standard tools from various vendors in each Engineering V development domain with the option to swap in other tools if you desire no single vendor lock in "The right tool for the right job"
- **Data Sharing** These diverse tools are integrated within a PLM data model establishing a Authoritative Source of Truth (ASoT) with real-time <u>Digital Thread change impact traceability</u>.
- **Speed to Operational** Cloud-based Automated Deployments of a integrated DE toolchain for program deployment in <u>days not months</u>.
- **Cloud Utility** The AWS cloud provides high availability, enhanced security and scalability while enabling 24/7 access through a distributed collaborative teamwork environment.
- **Real World Implementation** We have over 800 SAIC Digital Engineers working in 60 separate ReadyOne projects (workspaces) everyday
- People / Process / Tools ReadyOne (tools) is fully supported by SAIC DE Service Offerings including Consulting, Mentoring and Training.





Two Ways we offer ReadyOne

I. SAIC's Multi-Tenant Cloud





- Customer owned Tenant on SAIC's AWS GovCloud
- Customer owned Tenant on Customer's AWS GovCloud
- Customer owned Tenant on Customer's On-prem







Our ReadyOne AWS Cloudformation scripts can create a full DE Ecosystem in about 2 hours

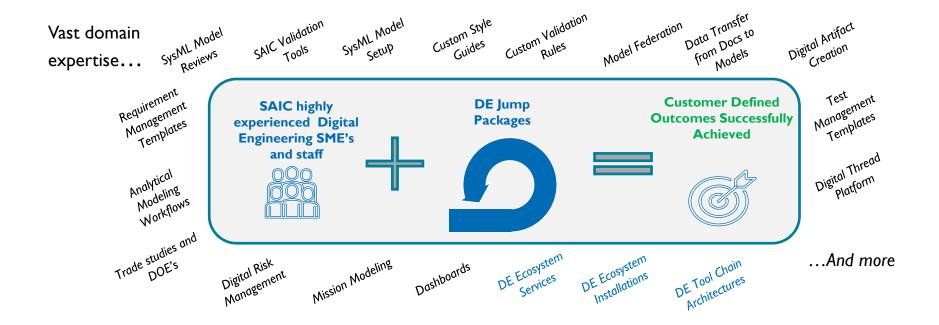


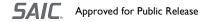
5AIC Approved for Public Release

SAIC PROPRIETARY INFORMATION I © SAIC. ALL RIGHTS RESERVED I



SAIC's Digital Engineering SME Support









ReadyOne™ conquers todays DE Ecosystem Challenges

ReadyOne provides a DE platform:

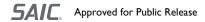
- Tool and Database agnostic = Open Architecture
- Shares Data between industry standard tools from various SW vendors
- No single vendor lock in
- Is centered around PLM-based data model establishing a Authoritative Source of Truth (ASoT)
- Provides change impact traceability = Digital Thread
- Can be fully deployed within a week
- Collaborative team environment
- Can be accessed from anywhere at anytime = Internet Based







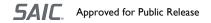
Questions?







Backup slides







The current ReadyOne™ Whitelist

System Engineering Life Cycle Domain	SAIC EIF Offering	Offering Manager	Approved 1st Choice / SAIC DE Eco	2nd Choice / Supplemental Use
PLM (Product Lifecycle Management)	Tool Federation	David Ewing	Aras Innovator ^{1,2,4}	TBD
Requirements Definition	DARE	Michael Vinarcik	IBM Doors Next Gen 1,2,4	Doors Classic 1,2,5
MBSE Architecture / Descriptive Modeling	DARE	Michael Vinarcik	Cameo Architect ^{1,2,4}	IBM Rhapsody ^{1,2,4}
Mission Engineering - Executable Workflow	DARE	Michael Vinarcik	STK ^{1,5} , AFSIM ^{1,5} , Ansys ModelCenter ^{1,2,4}	Ansys Minerva I,5
MCAD (Mechanical Computer Aided Design)	Engineering Design and Development	Ricky Stanfield	Solidworks 1,2,4	Creo ^{2,3,4}
ECAD (Electrical Computer Aided Design) - PCB	Engineering Design and Development	Ricky Stanfield	Solidworks Electrical ^{3,4} , Altium ^{3,5}	Autodesk
ECAD (Electrical Computer Aided Design) - Cabling	Engineering Design and Development	Ricky Stanfield	Solidworks Electrical ^{3,4} , Altium ^{3,5}	Autodesk
Embedded Software Design and Development	Embedded Software	Brandon Jennings	Azure ADO, Cameo	TBD
Modeling & Simulation	Modeling and Simulation	Brandon Jennings	Aras Innovator SDM ^{1,2,4} , Altair MultiPhysios ^{3,5} , Solidworks Simulation ^{1,2,4} , ModelCenter ^{1,2,4} , MatLab ^{1,5}	Ansys Minerva ^{1,5} for SDM
Test Tools	Modeling and Simulation	Brandon Jennings	National Instruments (LabView and Flexlogger) ⁵	TBD
VR/XR (Virtual Reality / Extended Reality)	Modeling and Simulation	Brandon Jennings	Unity ³	TBD
IV&V - Integration Verification and Validation Testing	DARE	Michael Vinarcik	IBM Engineering Test Management ^{1,4}	Celeris iRIS ⁵
Production and Manufacturing	Production and Manufacturing	Steven Hollingsworth / Josh Mendel	IMT - Integrated Manufacturing Toolkit ^{3,5,6} , Simio, Power BI	TBD
Sustainment / Maintenance	Sustainment	Cresta Bateman	Aras Innovator I.2.4	TBD
Digital Twin	Digital Twin	Cresta Bateman / Jared Marmen	Aras Innovator 1,2,4 and other tool(s) for full DT function	TBD
Digital I win Cresta Bateman / Jared Marmen Aras Innovator 1.4.7 and other tool(s) for full DT function I - Integrated with ReadyOne 2 - Integrated with Aras 3 - Roadmap/Pending Integration 4 - SME Support and Training Available 5 - Tool Availability Only				6 - Managed in conjuction with ITO

Last updated 08/17/2023



