



PROCURE-TO-PAY^{Orlando} TRAINING SYMPOSIUM 2018

Defense Automatic Addressing System (DAAS) Global Exchange (GEX)

Presented by:

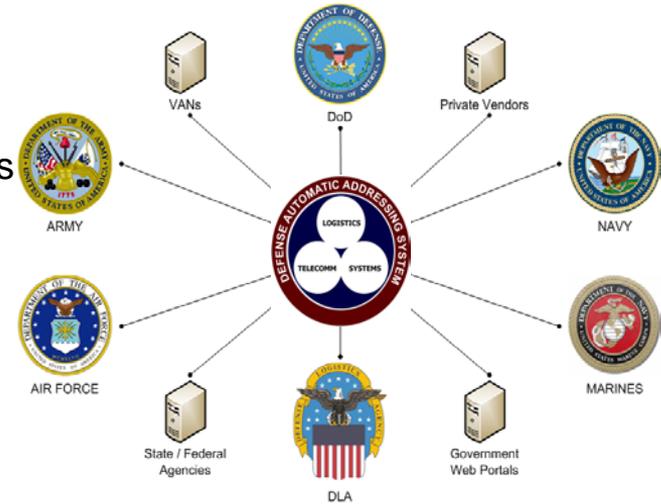
Gary Wooddell – Defense Logistics Agency

Lindsley Murphy – Northrop Grumman

Defense Automatic Addressing System (DAAS) Overview

Who We Are:

- An End-to-End System Design Center Operating 24x7, 365 Days
- DoD's Workhorse for Transaction Processing



What We Do:

- Provide a full range of Transaction Processing capabilities (Receipt, Edit, Route, Translate, Convert, Deliver)
- Support Acquisition, Financial, Logistics, Transportation, Healthcare and Travel Business Areas
- Enables interoperability between disparate DoD networks/systems
- Process 24 Million Transactions (Daily) in support of 225,000+ DoDAACs and 40,000+ Electronic Data Interchange (EDI) Trading Partners

Global Exchange

GEX Provides Capabilities to Support DAAS:

- The GEX provides broker or mediation services that enable the exchange of transaction data between DoD entities and private sector commercial industry
- Facilitates integration between government eBusiness systems and our private sector trading partners
- GEX validates, secures, translates, routes, archives, and delivers mass volumes of EDI and other transactions with guaranteed delivery and end-to-end accountability

Focus on Program Manager Support:

- GEX mitigates integration risk for DoD Business Systems Program Managers allowing them to focus on their core missions
- Streamlined data flow and connections to support Business Systems' security requirements

GEX History

- **ECPN (Electronic Commerce Processing Node) - 1995**
 - DISA replacement for Network Entry Point (NEP)
 - Comms and Routing
- **DEBX (DoD E-Business EXchange) - 1998**
 - JECPO – Joint Electronic Commerce Program Office
 - Joint effort between DISA and DLA
 - Introduction of DEBX at DAASC to Support Logistics DLMS Processing
 - Data Translation
- **GEX (Global EXchange Service) - 2004**
 - Continued evolution to utilize new technologies and expanding use of GEX to support increasing volume
- **GEX Program Management Transition to DLA - 2011**
 - DLA assumed responsibility upon shutdown of the BTA (Business Transformation Agency)

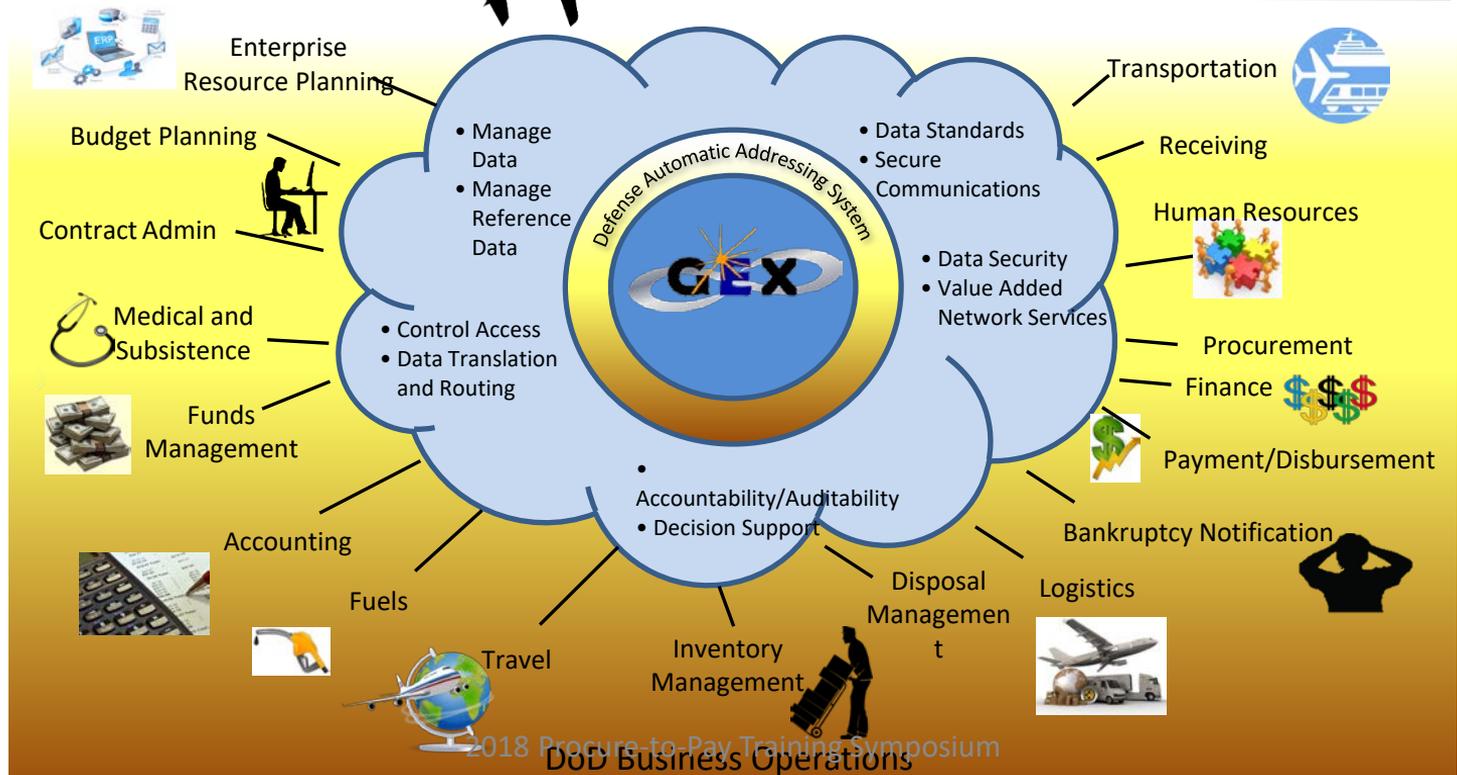
GEX Capabilities

- **Front door for EDI transactions**
 - Modern, variable length transaction sets such as X12, XML, iDoc and User Defined Format (UDF) transaction file types
 - Supports 50+ different transaction sets
 - Supports Defense Logistics Management System (DLMS) transactions and many other X12 EDI transactions
 - Supports interoperability
- **Mapping, translation, and data conversion services**
 - Routing of EDI data (38,000+ trading partners)
 - Connections to commercial Value Added Networks (VANs), DoD Service and Agency business systems, Commercial companies, Federal systems

GEX Design Themes



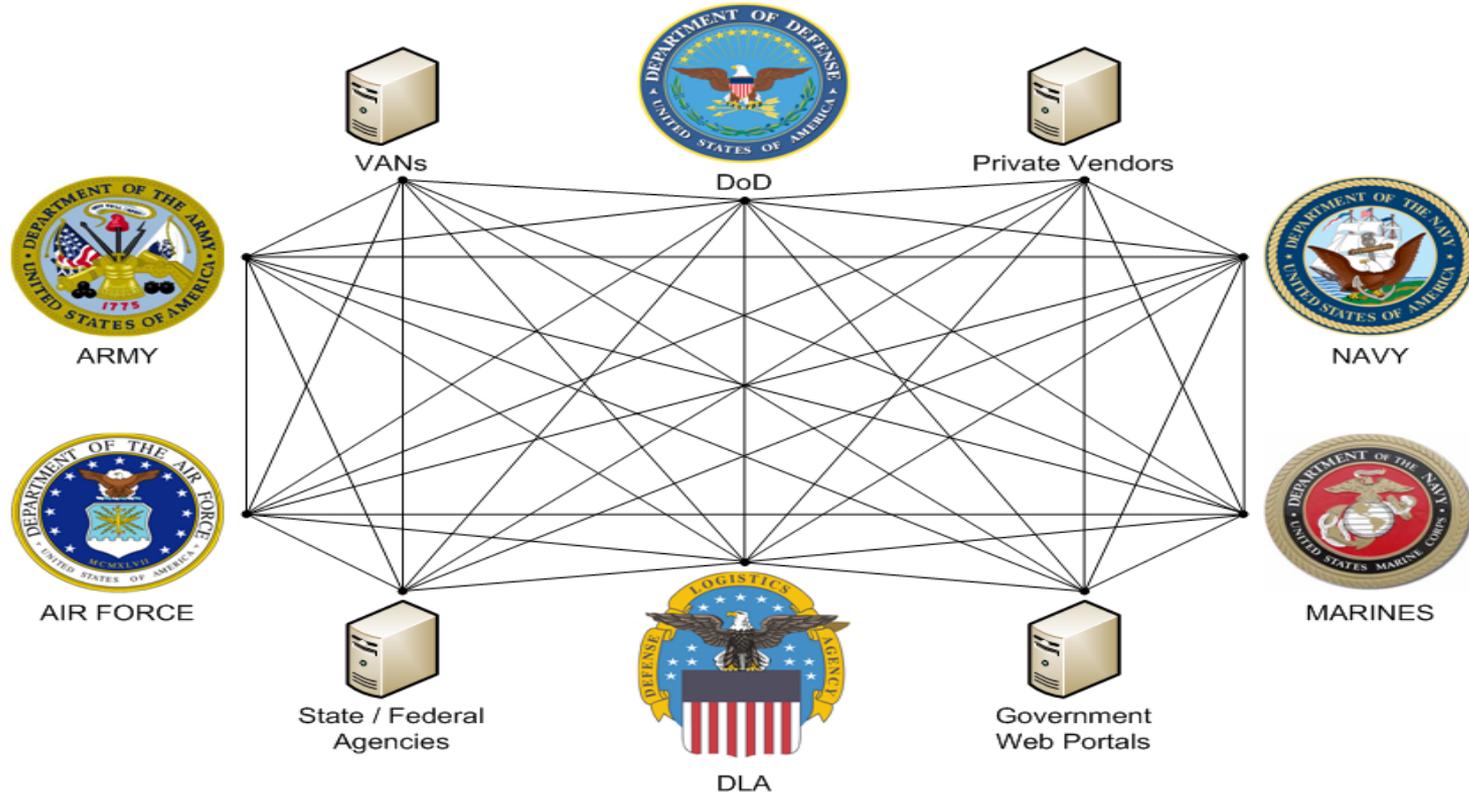
Warfighter Operations



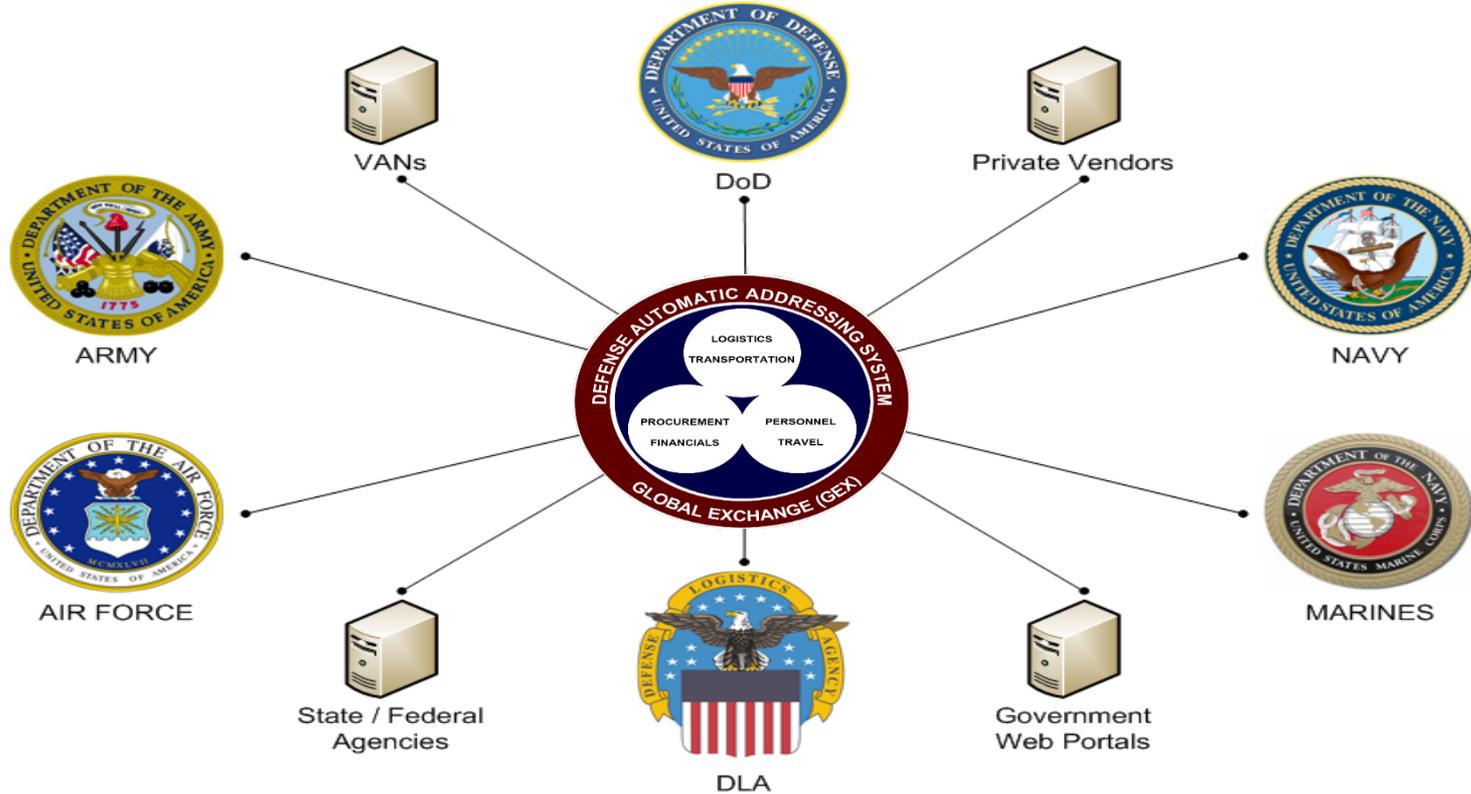
GEX Capabilities

- **Translation**
 - Decoding and validation of X12, XML, and UDF transactions
 - Application of appropriate translation and mapping rules
 - Provides opportunities for trading partners to migrate to compliance w/standards
- **Sorting and Routing**
 - Secure transmission and receipt of transactions
 - Use of multiple different telecommunications protocols
 - Configurable processing alerts
 - Application of routing/distribution list processes
- **Metrics**
 - Monitoring, Logging and archiving of all data/activities
- **Scalability**
 - Dynamically sizes to increased volumes of transactions

DoD System Interoperability



DoD System Interoperability

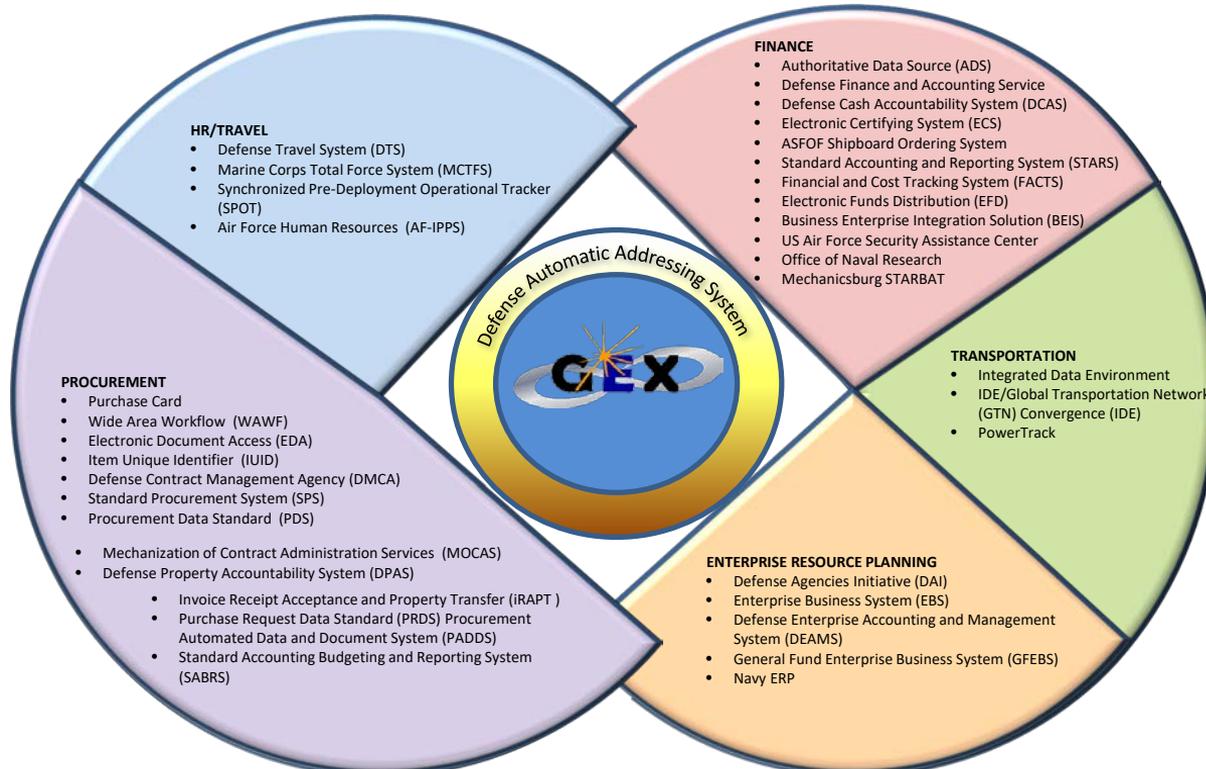


Global Exchange Services (GEX) User Community

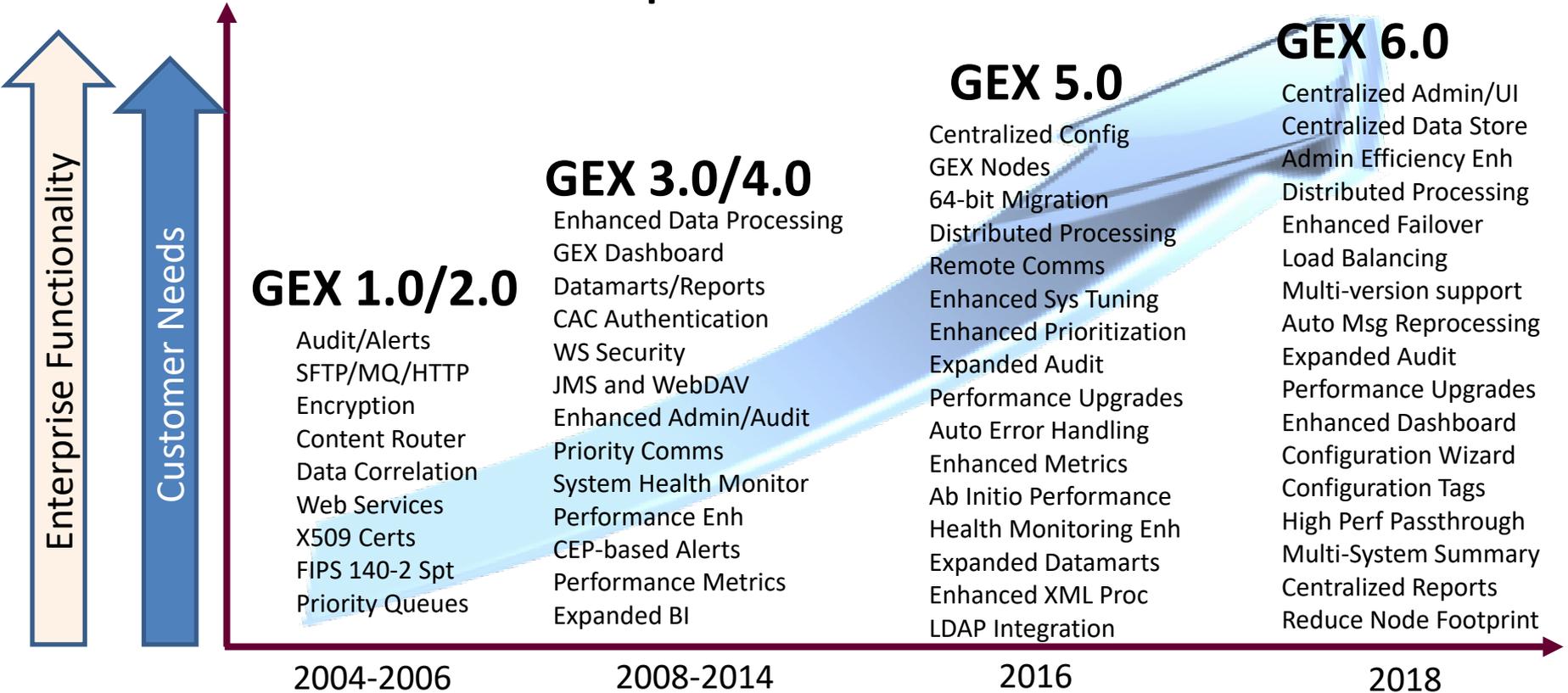
GEX Core Services/GEX Map Interfaces

SHARED SERVICES

- PDS
- PRDS
- SLOA
- CLS



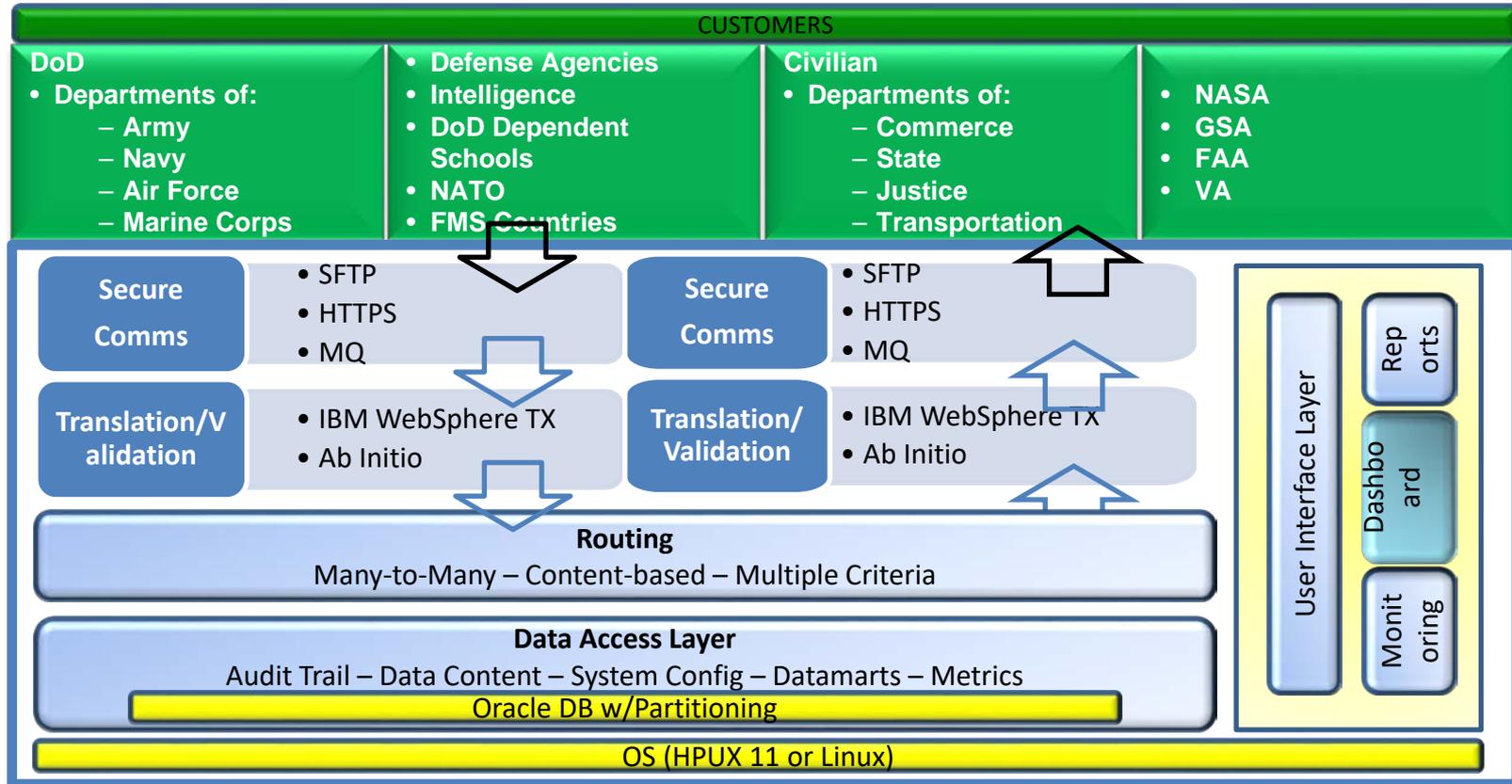
GEX Capabilities Evolution



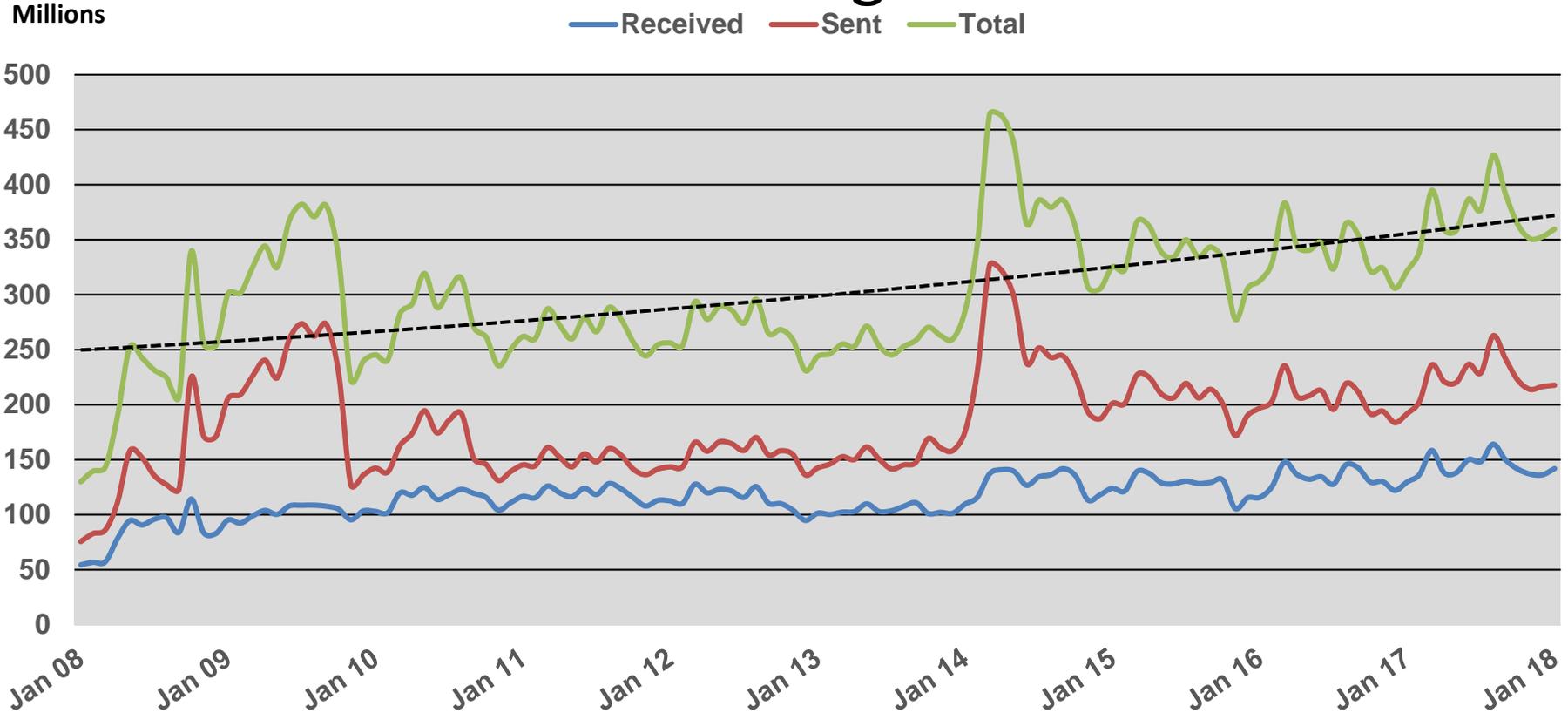
“Proven Capability – ready off the shelf”

2018 Procure-to-Pay Training Symposium

How GEX Works



GEX Processing Volumes



GEX Growth

Between 2014 and 2017:

- Data Mediations increased 40%
- GEX Instances increased 75%



	Files	Transactions
2017 Yearly Total	1,354,962,857	4,636,603,119
% Increase Over 2016	12%	10%
2017 Monthly Average	112,913,571	386,383,593
2016 Monthly Average	100,690,151	352,784,632

GEX processed nearly 21 Trillion Bytes of data in 2017!!

Scalable Software Architecture

GEX Scalability

- Configuration/Tuning for steady state and data surges
- Configurable Data Prioritization
- Allocates System Resources based on Data Volumes
- Health Monitoring and Alerts for automated or administrator actions to resolve issues

Infrastructure Scalability

- Robust VM environment provides flexible, efficient model to add GEX instances to support increasing volumes
- GEX enclave and DMZ instances work together for both load balancing and COOP scenarios

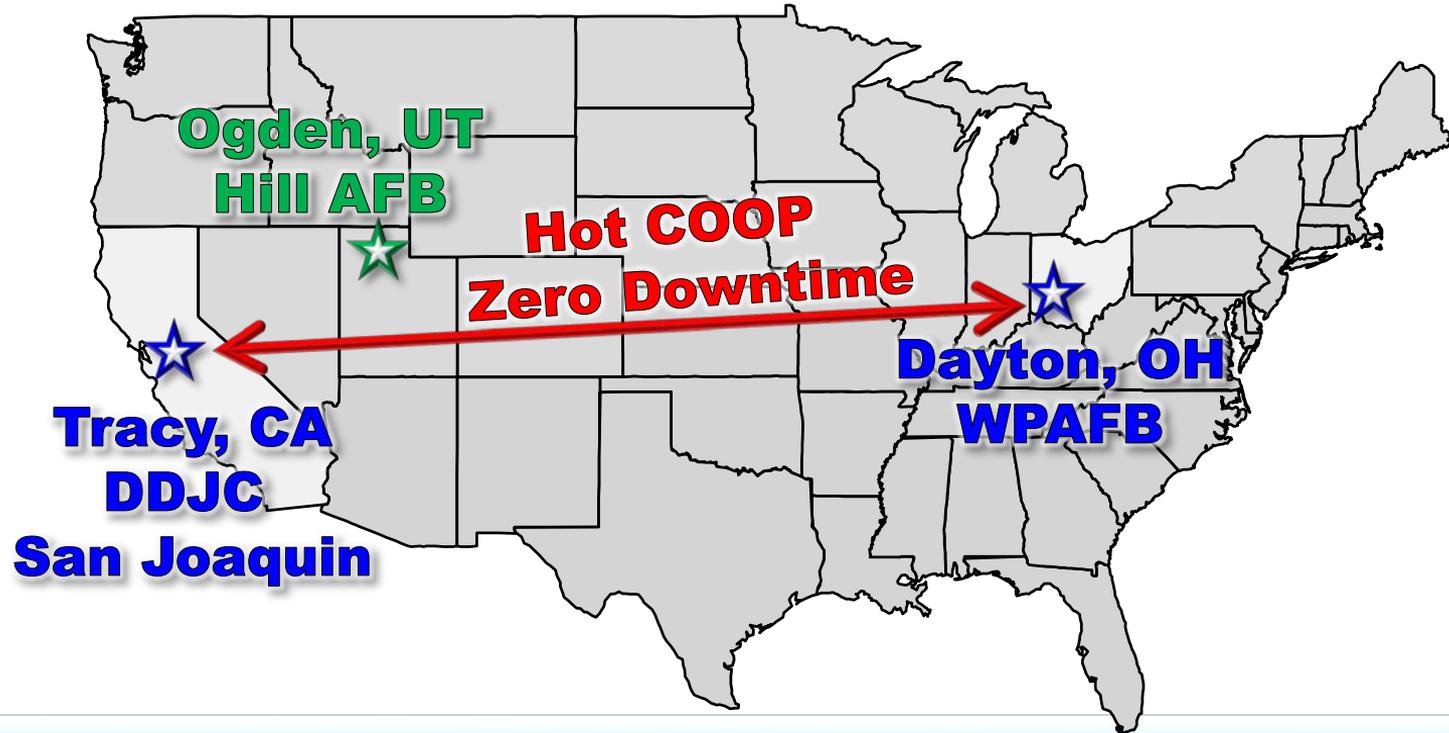
Scalable Software Architecture

Continuity of Operations

- GEX operates out of two data centers
- Hot-Hot processing with both sites capable of handling full workload
- GEX enclave and DMZ instances work together for both load balancing and COOP scenarios
- GEX production traffic can be quickly moved between production data centers

- **Customers are encouraged to take advantage of hot-hot processing mode and connect their systems to both GEX production sites**

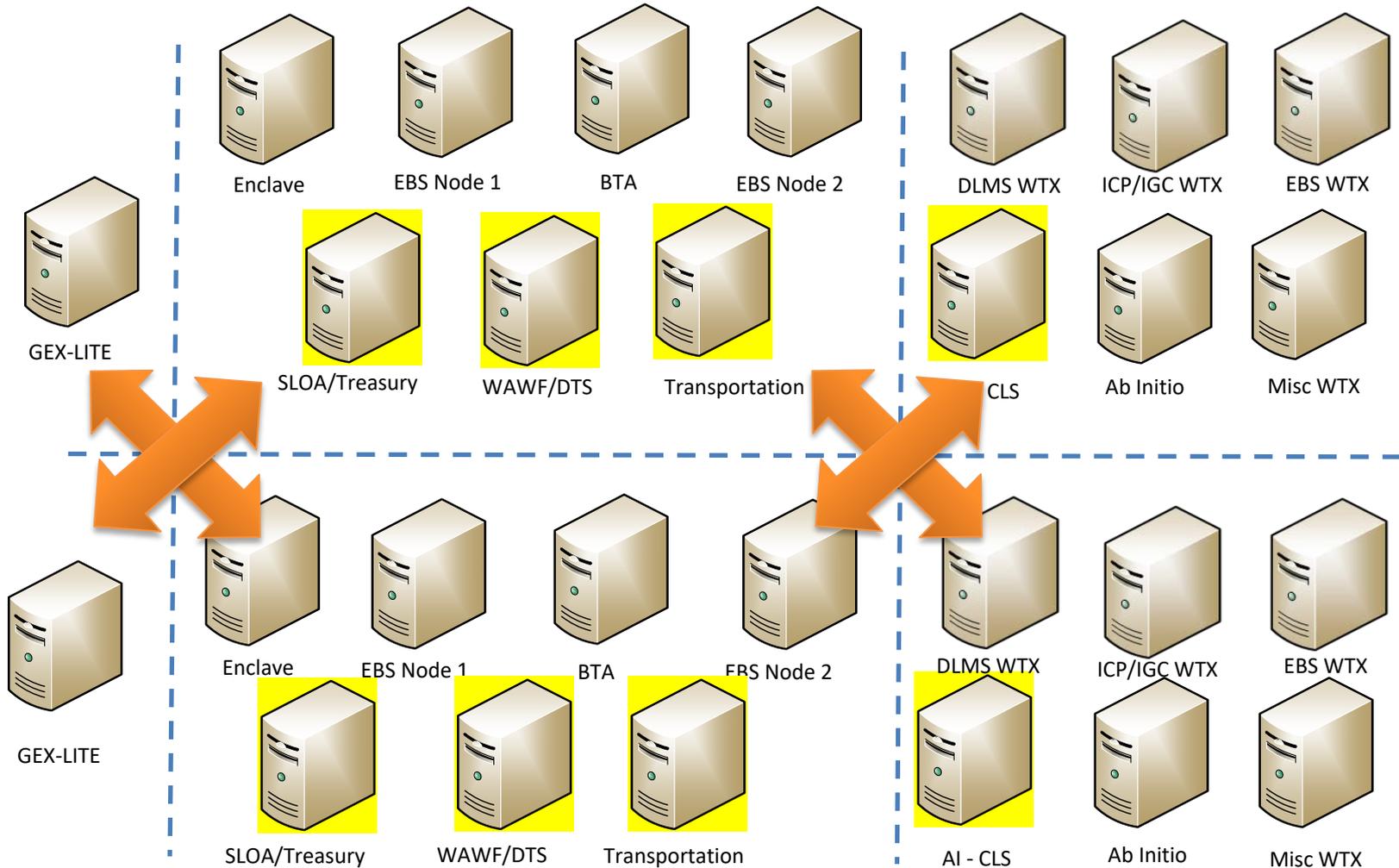
Scalable Software Architecture



Dual Sites Provide Concurrent Transaction Processing Capability.

DMZ

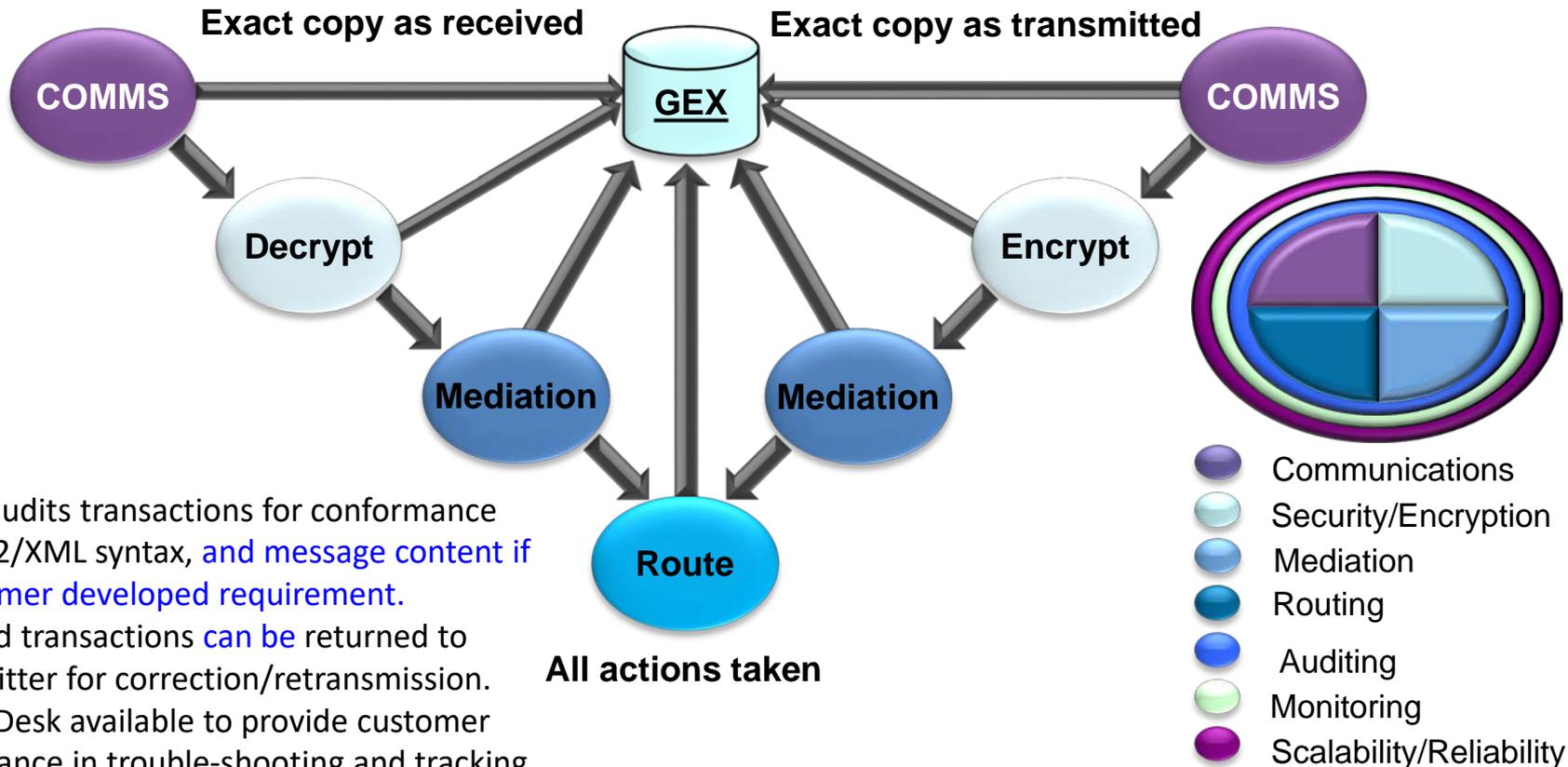
Enclave



DAAS Auditability

- GEX is a part of the Defense Automatic Addressing System (DAAS)
 - DAAS is accredited via Risk Management Framework (RMF)
- DAAS undergoes a Statement on Standards for Attestation Engagements (SSAE) annually
 - DAAS report can be requested via auditreadinessliason@dla.mil
- Note: Data currently processing on the GEX hosted at DISA is not in scope of the DAAS SSAE
 - As data is moved to the GEX hosted at DLA, the feeds become immediately subject to audit examination
 - Migration will be completed in FY18, currently estimated for mid-May

Audit Trail and Reporting



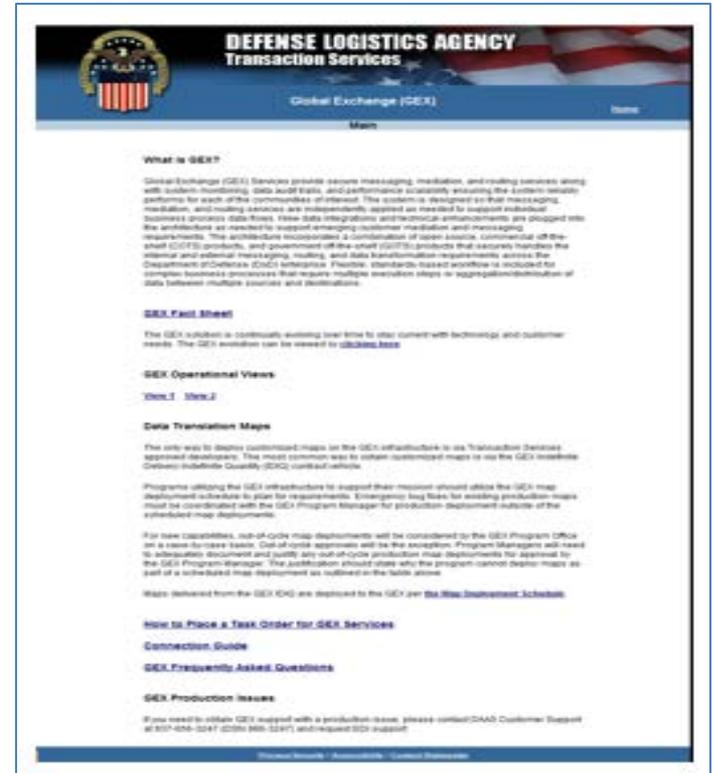
- GEX audits transactions for conformance to X12/XML syntax, **and message content if customer developed requirement.**
- Invalid transactions **can be** returned to submitter for correction/retransmission.
- Help Desk available to provide customer assistance in trouble-shooting and tracking transactions.

DAAS Customer Requirements

- DAAS customers must:
 - Produce/maintain a valid Authority to Operate (ATO) for their system
 - Sign/maintain an agreement with DAAS
 - Provide funding for required new or updated mappings
 - Cost based on the number of maps and complexity of the requirements
- Provide technical support staffing capable of:
 - Establishing secure connectivity between their system and the GEX as required by DoD security requirements
 - Preparing and submitting test transactions during set-up/test phase
 - Monitoring/operating the local system originating the transactions
 - Processing and resubmitting error transactions received from the DAAS Customer Support personnel

GEX Website

- GEX Information
 - Fact Sheet
 - Operational Views
- Mapping Information
 - Contents of Map Updates
 - Map Release Schedule
- How to Place a Task Order for GEX Services
- Connection Guide
- FAQs
- Website is CAC protected



<https://www.transactionservices.dla.mil/gex>

How to Acquire New GEX Integrations/Capabilities

- Identify requirements for data transactions or GEX capabilities
- Coordinate with DAAS EBUS Office
- Northrop Grumman available via a single award contract vehicle to provide customer funded integration/GEX capabilities support
- Integrations/capabilities developed and tested
- Coordinate security requirements and connectivity agreements with DAAS
- GEX new business needs contact:

Gary Wooddell

Chief, DAAS Electronic Business and Global Exchange

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Reprocessing Requirement

Issue

- MOCAS receiving the initial contract award and a modification to the award in the same batch can lead to the modification posting first, which errors

Solution

- GEX will identify modification actions in which there is a matching contract on the same day's transmission
- Hold modification and retransmit 24 hours after transmission of base contract
- Requires use of GEX core to keep repository of transactions in a datamart as well as a map change to conduct the necessary lookups when data is being processed
- Functionality can be extended to other transaction types

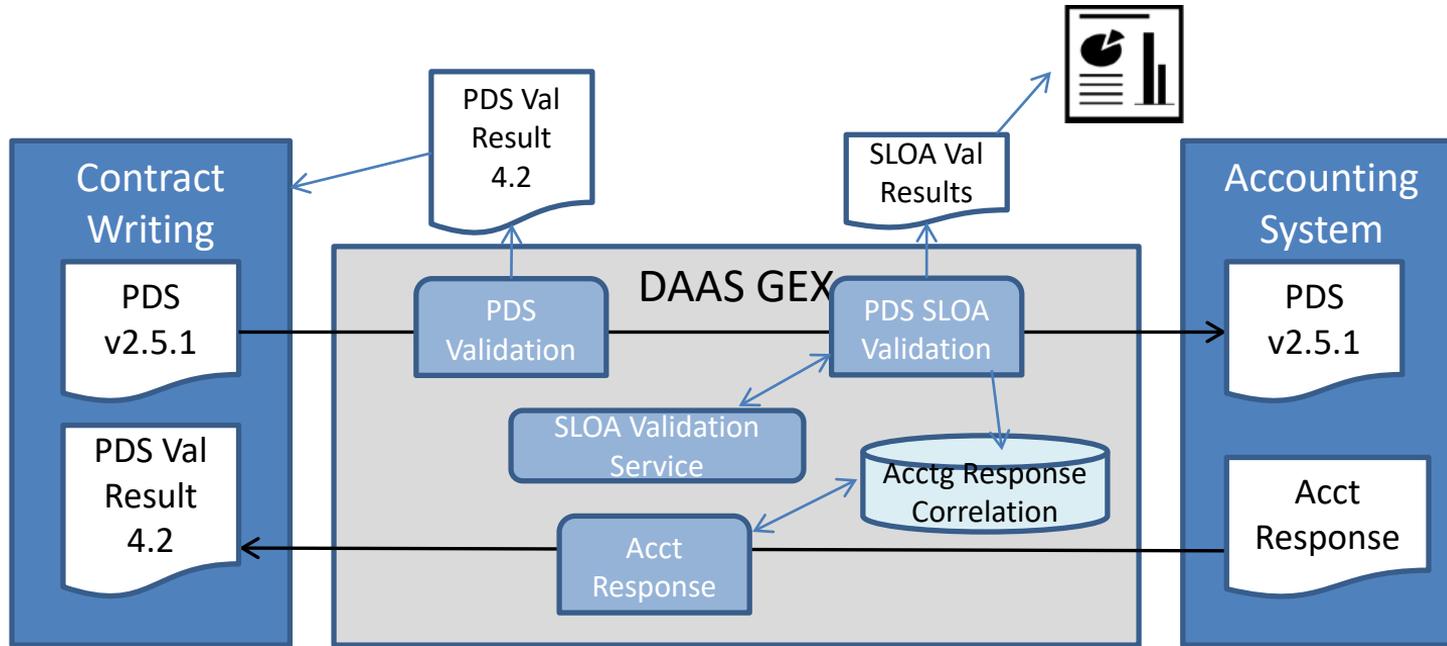
What 's the GEX's Role in Procure2Pay?



GEX is used broadly across many of the P2P Handshakes to...

- Reduce significant amount of point-to-point interfaces
- Achieve system to system interoperability
- Provide traceability of transactions
- Apply internal controls
- Provide metrics on adherence to data standards

PDS Funds Verification Pre-Award (HS-2)



- PDS SLOA Validation graph is dependent on presence of a valid AAI in the AAI routing table
- PDS SLOA Validation graph applied checks and reports only on ^ delimited BLOB; PDS non-SLOA pass through

DAAS Business Services

Customers

DoD (98% of workload)

- Departments of:
 - Army
 - Navy
 - Air Force
 - Marine Corps
- Defense Agencies
- Intelligence
- DoD Dependent Schools
- NATO
- FMS Countries

Civilian (2% of workload)

- Departments of:
 - Commerce
 - State
 - Justice
 - Transportation
 - Treasury
- NASA
- GSA
- FAA
- VA
- FEMA
- USPS
- GAO
- CG

Volumes

CY 2017	– 7.8 Billion MILS & EDI
CY 2016	– 7.5 Billion MILS & EDI
CY 2015	– 8.0 Billion MILS & EDI
CY 2014	– 8.7 Billion MILS & EDI
CY 2013	– 7.4 Billion MILS & EDI
CY 2012	– 8.3 Billion MILS & EDI

259,558 Business Partners Worldwide

DAAS Business Services Offered

- Enterprise Wide Order Fulfillment and Information Processing
- Editing, Validating, Routing & Archiving
- Performance Measurements
- Disparate systems interoperability

Customer Business Transactions:

- DLSS (MILS)
- DLMS (X12 & XML)
- ANSI X12, XML
- UDF and IDoc

Business Transport Methods:

- Websphere MQ
- SFTP
- SMTP
- HTTPS

Suppliers

Defense Logistics Agency

Military Services

General Services Administration

Commercial Suppliers



Procure-to-Pay



Training Symposium

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