

Organization Unique Identifier

Human Resource Management Investment
Review Board (HRM IRB) Chairs

17 April 2009



Personnel and Readiness Information Management



Purpose

- ▶ Discuss Organization Unique Identifier (OUID)
- ▶ Review status of OUID implementation
- ▶ Discuss OUID Registry



- ▶ An OUID is a unique Global Force Management Data Initiative (GFM DI) identifier for an organization
 - Required by DoD Directive (DoDD) 8320.03 (*Unique Identification Standards for Net-Centric DoD*) and implemented by DoDI 8260.03 (*Organization Force Structure Construct for GFM*)
- ▶ OUIDs serve as a “primary key” to link GFM DI organizational information to other functional systems across the DoD Enterprise
 - Will facilitate machine to machine exchange of data across the Global Information Grid (GIG) and use of organization information between warfighting and business systems
 - Ensures information exchanged between enterprise systems on the GIG is unique and precludes collision of data from multiple sources

Every organization in DoD will have an OUID



OID Concept

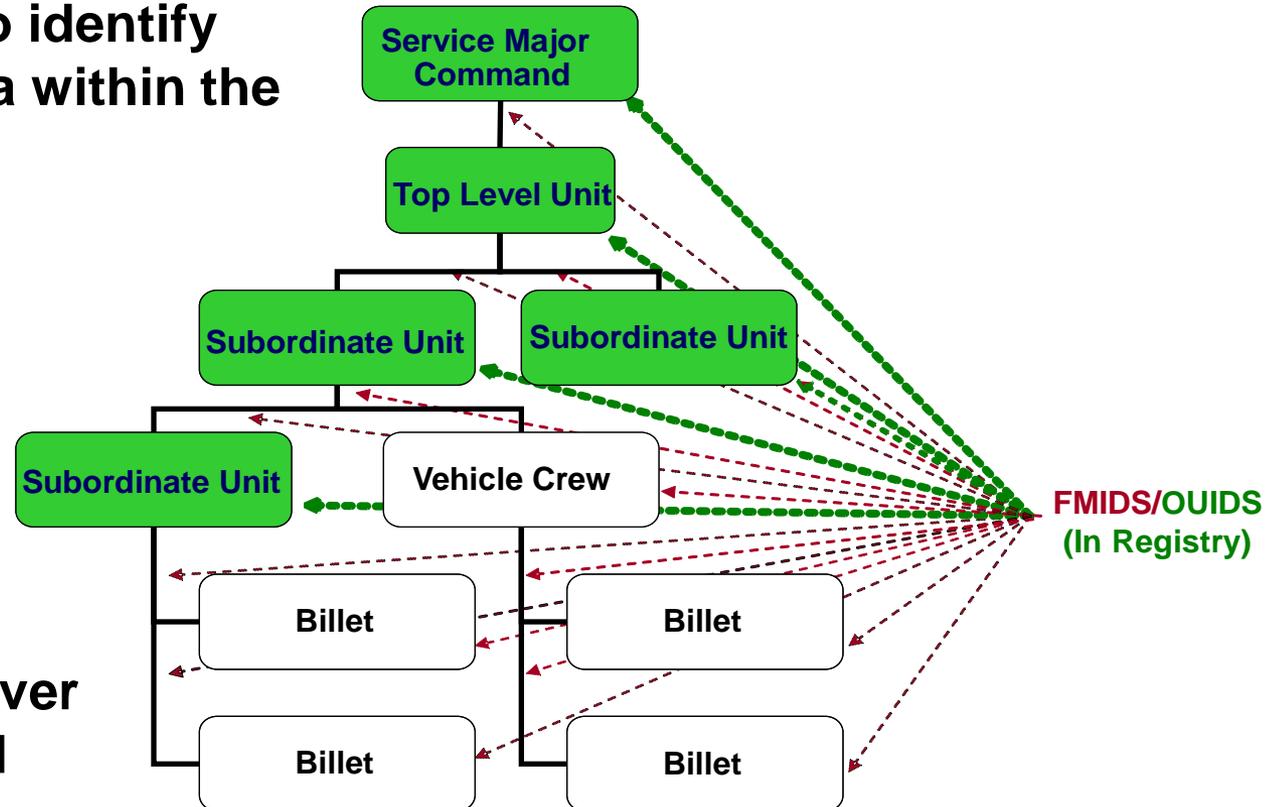
- ▶ GFM DI leverages Force Management Identifiers (FMIDS) to generate OUIDs
 - FMIDS are generated by GFM DI Organization (Org) Servers to uniquely identify information for all DoD organizations and non-DoD organizations that contain DoD force structure (e.g., NATO, DOS, NASA)
 - OUIDs are the subset of FMIDS that identify organization nodes
 - Once generated, an OUID will be linked to that organization forever
- ▶ OUIDs are unintelligent numbers and by themselves do not provide links to organizational structure
- ▶ Legacy identifiers can still be used in business systems and processes and linked to OUID as aliases
 - Net-centric exchange of organization information must use OUID

OUIDs are FMIDS that identify organizations



FMIDS/OUID Relationships

FMIDS are the collection of identifiers used to identify each piece of data within the Org Servers



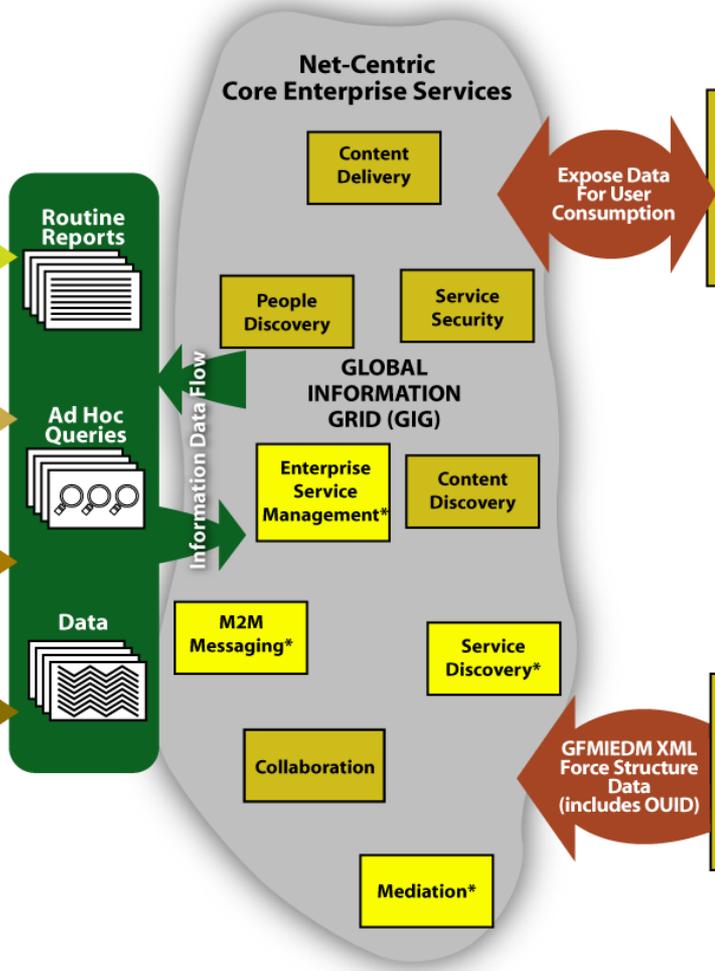
OUIDs are the subset of Org Server FMIDS associated with the Organization Name

Net-Centric User (OV-1)

(Applies to Classified and Unclassified Environments)

Net-Centric Users

Planning
 Programming
 Budgeting
 Execution
 Global Visibility Capability
 DIMHS
 DRRS
 BFT
 DMDC
 Personnel
 Finance
 Logistics
 Force Employment
 Adaptive Planning
 Battle Command Systems
 Intelligence
 Initialization Data
 Analytical Agenda



Authoritative Data Sources

Functional Area	Force Structure Representation	Enterprise Identification
Human Resources Management	OID	EDI PI
Financial Management	OID	AAI
Logistics	OID	IUID
C2 Systems	OID	...
Installation and Environment	OID	RPUID/SUID
...	OID	...
Computing Infrastructure	OID	SYSUID

Virtual Organization Servers

USA USN OSD
 Intel Community
 USAF USMC CJCS

*Information Technology Enterprise Solutions (ITES-2)



What Does an OUID Look Like?

- ▶ An OUID is a 64-bit binary data element FMID built upon an Enterprise-wide Identifier (Ewid) Allocation Scheme

010002B600001F6A

- Displayed as either a 16 character hexadecimal or 20 digit numeric ($2^{64}-1$)
- An identifier that is unique across the enterprise (e.g., DoD)
- Fundamental characteristics:
 - Includes no information about the entity it identifies
 - It is a fixed size (ease of software development and interoperability) of 64 bits (the smallest size that will do the job - bandwidth is a consideration)
 - Allocation Scheme: Global Prefix, Local Suffix for simplicity
- A central “seed” server provides the global prefix: 4.3 Billion Seeds
- When any data is created, it is tagged with an identifier that remains associated with it for its life



Example OSD Org Server FMID/UUID

UNCLASSIFIED Sign Out

GFM Org Server

Welcome, blackeip

Force Structures | Organizations | Positions | Equipment | Users | Help | Configuration

Quick Links

- Find Orgs
- Add New Org
- Decommission Current Org
- Delete Current Org
- Pedigree
- Positions List
- Equipment List

Supporting Docs

- NTTP 1-03-3a SORTS
- CJCSM 3150-02A
- CJCSM 3150-02A Enclosure G
- UDC Reference Values
- ULC Reference Values
- UTC Reference Values

Edit Org

ORG: WALTER REED AMC, DC COMMISSARY: MEAT DEPARTMENT
UIC: N/A
FMID: **010002B600001F6A**

Org Type
Type: Org Unit Unit (Reports SORTS) [?]

Agency
Registering Organization: US Department of Defense
Agency: US Department of Defense
REVAL: None

Identification
UIC:
* AName: WALTER REED AMC, DC COMMISSARY: MEAT DEPART
* LName: WALTER REED AMC, DC COMMISSARY: MEAT DEPART
Org Type: GVTORG - GOVERNMENT-ORGANISATION-TYPE: An
SCLAS: U - Unclassified
HOGEO: ZZZZ - No Location Provided [?]
* Start Date: 01/01/1900
End Date:

Bides

Done Local intranet

start | OSD ... | Calen... | Windo... | status... | 0708G... | Week... | Global... | Demo ... | 10:53 AM



Sample listing: OUIDs Assigned to OSD Offices

OSD	Immediate Office of Secretary of Defense	010002E0000002AE
OUSD(P&R)	Office of the Under Secretary Of Defense For Personnel & Readiness	010002B600000028
OUSD(AT&L)	Office of the Under Secretary Of Defense For Acquisition, Technology And Logistics	010002B600000025
OUSD(C)	Office of the Under Secretary Of Defense (Comptroller)	010002B600000026
OUSD(P)	Office of the Under Secretary Of Defense For Policy	010002B600000029
OUSD(I)	Office of the Under Secretary Of Defense For Intelligence	010002B600000027
ODA&M	Office of the Director, Administration & Management	010002B60000001C
WHS	Washington Headquarters Services	010002B60000002E



OID status

- ▶ Initial availability of OIDs was Sep 07 for “bridge data” (DoD umbrella Organizations – e.g., DoD, Army, Navy)
- ▶ OIDs will be available for all organizations with full implementation of GFM DI Organization (Org) Servers in Fall 2009
- ▶ Standard Financial Information Structure (SFIS), Defense Agency Initiative (DAI), Real Property Unique Identifier (RPUID) and the Defense Readiness Reporting System (DRRS) have already identified the requirement for use of OIDs
 - Top Tier OSD and Defense Agency OIDs already provided to SFIS, DAI, and AT&L (RPUID Registry)
- ▶ OIDs will be available to external users in an OID Registry
- ▶ Joint Staff J-8 and Defense Manpower Data Center (DMDC) working to require OID and Electronic Data Interchange Person Identifier (EDIPI) be incorporated into current personnel systems



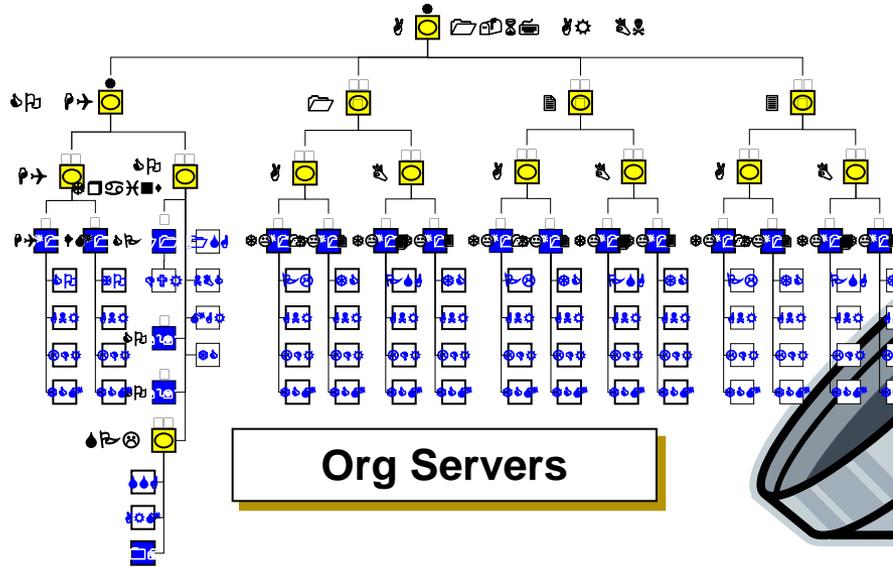
OID Registry

- ▶ All OIDs generated in the GFM DI Component Org Servers will be provided to / listed in the OID Registry
- ▶ OID Registry will be a central registry or “phone book” which will expose OIDs to the web
 - Provide aliases to identify organization / organization’s OID
 - For example: 1 ID, Big Red One, UIC
 - Provide a map to other “alias” organization identifiers
 - Provide “pointers” to the OID source Component Org Server
- ▶ OID Registry will not provide organization relationships
 - Organization links are maintained in the Org Servers
 - Subscribers will obtain links from Org Servers for their business needs
- ▶ OID Registry will be mirrored in the classified environment

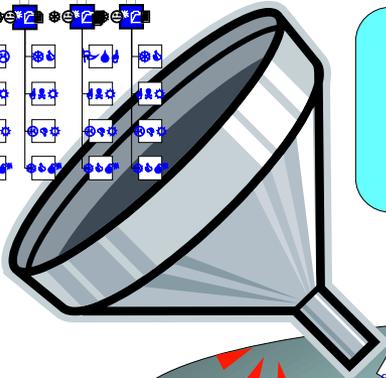
Prototype OID Registry is planned for CY 09



The FMIDS generated in the Org Servers are the key to the OUID Registry

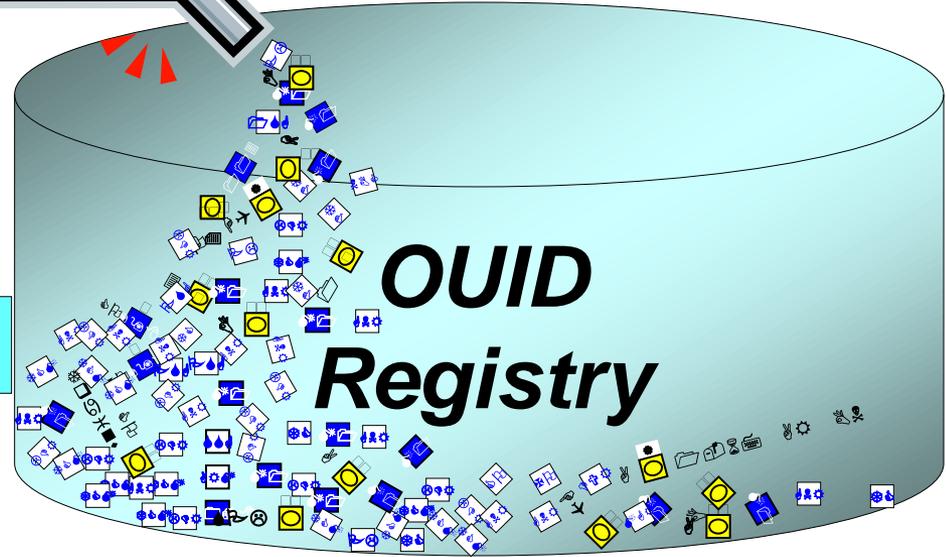


All organizational identifiers will be linked to the OUID Registry



Alias Identifiers

<u>OID</u>	<u>Name</u>	<u>UIC</u>	<u>OAC</u>	...
12345...10	A/1-67 AR	WAQ2A0	-	
54654...54	115 BSB	WH2DAA	ABCD	
23478...23	1/A/1-67	-	-	
43129...21	A/1/A/1-67	-	-	
12049...10	TC/A/1/A/1-67	-	-	





Questions?

For additional information, visit the P&R IM Website:

<https://www.mpm.osd.mil> or the J-8/Joint Data Support Website:
[https://www.intelink.gov/wiki/Global_Force_Management_Data
_Initiative](https://www.intelink.gov/wiki/Global_Force_Management_Data_Initiative)



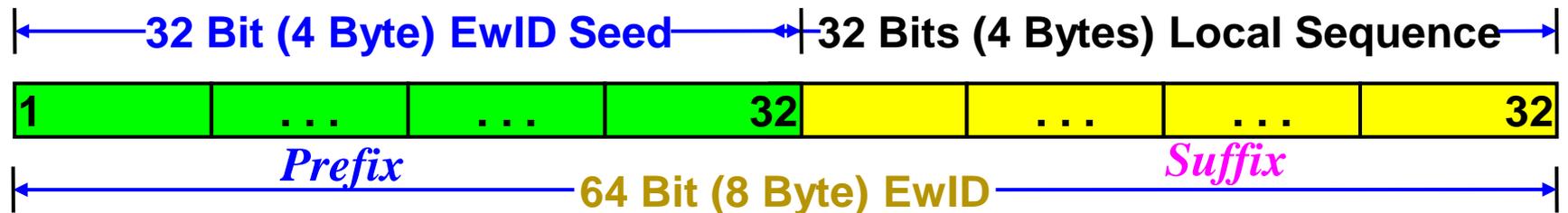
Back-Up



GFM DI OUID Formulation Scheme

An enterprise-wide identifier (EwID) to uniquely identify *any item* in *any database* can be composed by combining unique identifiers.

1. A globally unique, four byte (32 bit) “EwID Seed” is obtained from an EwID Seed Server by the Org Server.



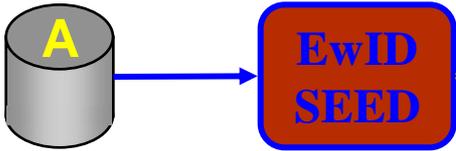
2. The Org Server generates eight byte (64 bit) FMIDS by appending the EwID seed prefix with a locally controlled, unique, four byte (32 bit) suffix.
3. The common, eight byte (64-bit) enterprise-wide identifier format allows 2^{64} bit patterns = 18.45×10^{18} , or 18.45 Exa-identifiers, or 18 Billion Billion Unique Entities to be tracked. In other words . . . 4.3 billion EwIDs can be produced from each of the 4.3 billion EwID Seeds.

Enterprise-wide Identifier Allocation Hierarchy

GFM Org Server Example

NOTE: This entire process will be transparent to the user, who will see only the OUID

Virtual FMIDS EwID Seed Server (ESS)
w/ 4.3 Billion Seeds

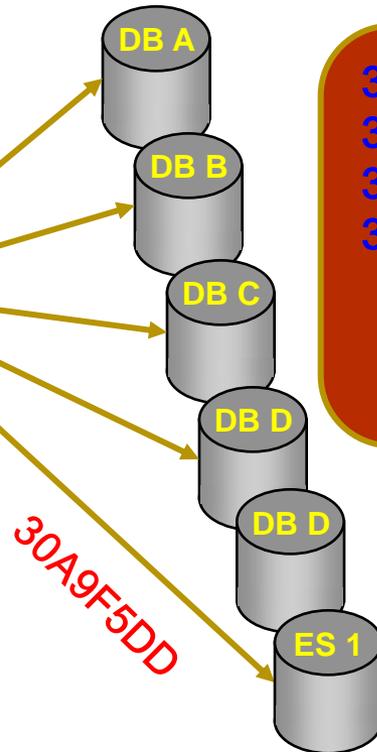


<https://ess.arl.army.mil>

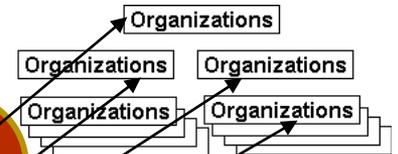
Note: This is all transparent to the user who will only see the resulting FMIDS associated with the Force Structure Information

Up to 4.3 Billion Servers possible

Org Servers



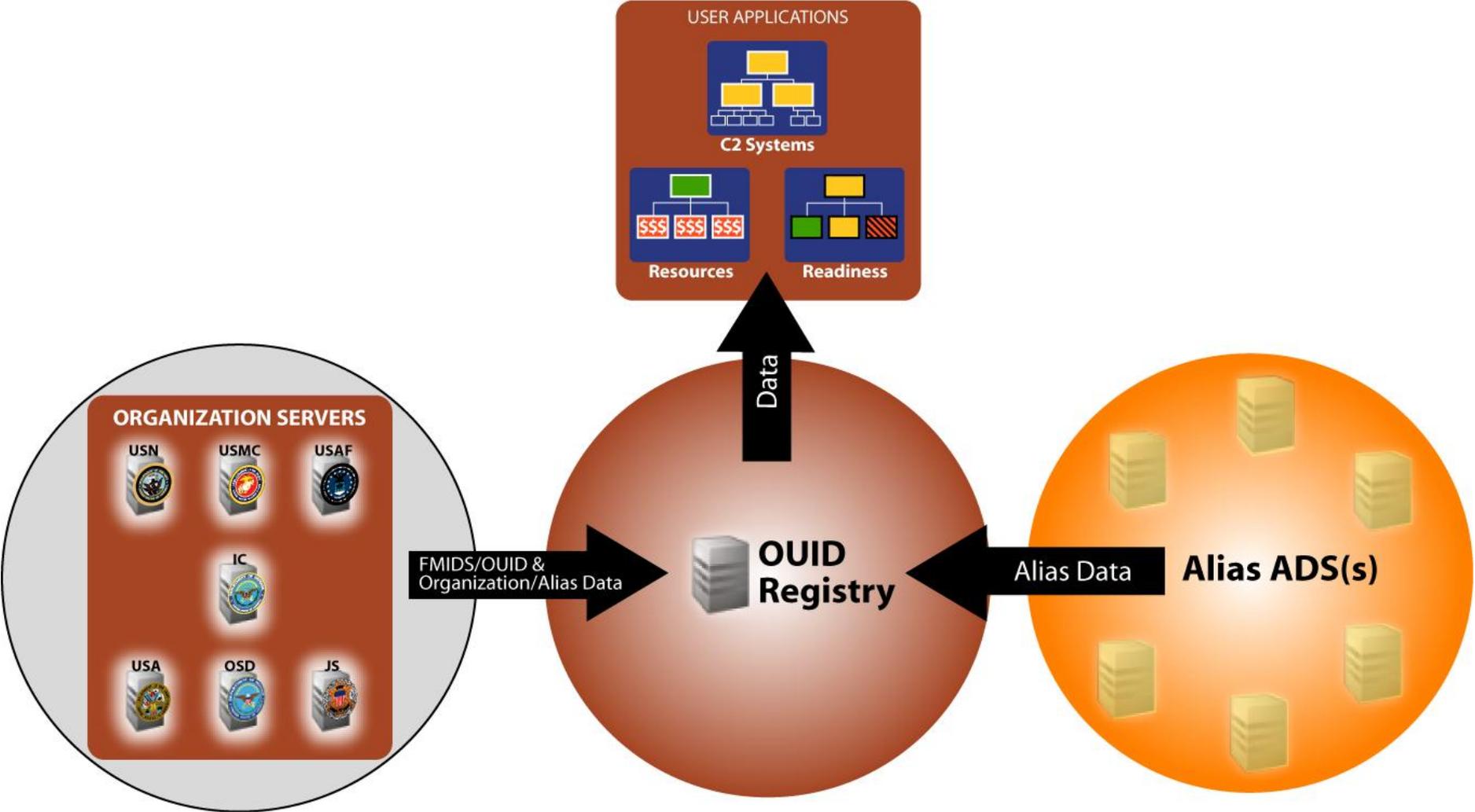
Virtually Unlimited OUIDs



30A9F5DD00000001
30A9F5DD00000002
30A9F5DD00000003
30A9F5DD00000004

Each Org Server Can Provide 4.3 Billion FMIDS per seed

Organization Unique Identifier





The OUID Registry will...

- ▶ Uniquely identify DoD Organizations
- ▶ Be the Authoritative Data Source (ADS) for all OUIDs
- ▶ Interface with current systems which create and maintain organization information as the ADS for organizations
- ▶ Hold the minimum set of organization information to allow retrieval from the ADS or other systems of additional organizational information
- ▶ Allow for the mapping of alias identifiers from approved ADS
- ▶ Be mirrored in the classified environment with classified organizations

The OUID Registry will not...

- ▶ Identify the processes required to utilize an OUID for transactions within and among DoD Systems
- ▶ Track or store transaction information or information other than the minimum required for the use of OUIDs to obtain required information from other systems
- ▶ Contain organizational relationships unless through an alias
- ▶ Contain financial information
- ▶ Change existing non-DoD US Federal Government organization identification policies, procedures or requirements

GFM DI Concept

Electronically documents "Authorized" force structure data for integration across DoD

Feeder Systems

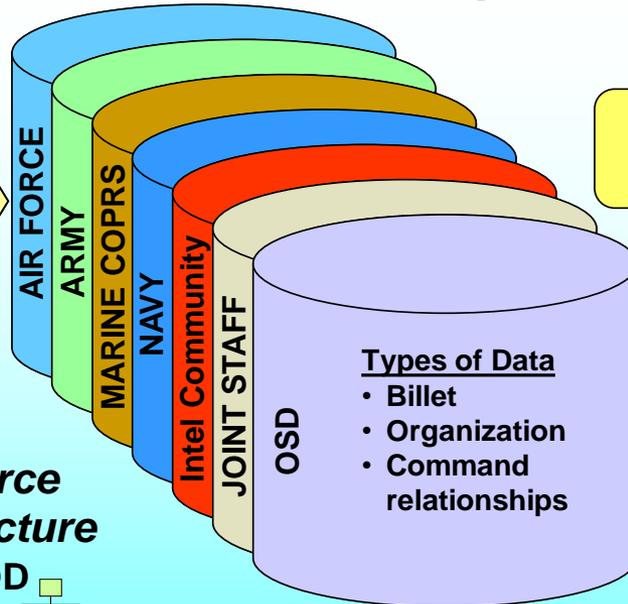
- eJMAPS
- TFSMS • DRRS-N
- FMS • GCSS-AF



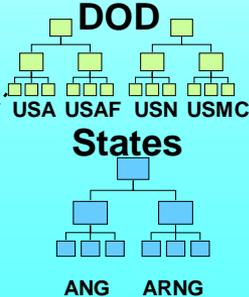
- Billet Data**
- Rank/Grade
 - MOS/AFSC
 - Skill Code
 - Skill Level
 - Service
 - Effective Date
 - Service Billet ID

ORG Servers "Shared Spaces"

Raw Data



Force Structure



- Elements tagged with unique identifiers
- Document hierarchies & relationships
- Org Servers are the Authoritative Data Sources for force structure

Net-Centric Enterprise Services

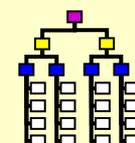
All Organizations Uniquely Identified (OUIDs)



Accessible



Authoritative Force Structure Data



- Understandable
- Links to other functional Identifiers

Data Consumers

- | | | | | | |
|--------|-----------|-------------------|---------------|-----------|---------------------|
| PPBE | BFT | Force Employment | Intelligence | Personnel | Initialization Data |
| DIMHRS | DMDC | Adaptive Planning | C2 Systems | Financial | Analytic Agenda |
| DRRS | Readiness | OUID Registry | Installations | Logistics | Battle C2 Systems |