DoD IA Range Overview

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Mission

An Environment to:

- *Exercise* cyber warriors

- *Test & Evaluate* new capabilities

- *Train* network defenders

Operationally realistic

GIG-like look & feel

Non-production

Isolated

Can connect to other environments of similar purpose

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Foundation

- ▶ **Drivers**
    - **Comprehensive National Cybersecurity Initiative (Init 7)**
    - **National Security Presidential Directive-54**
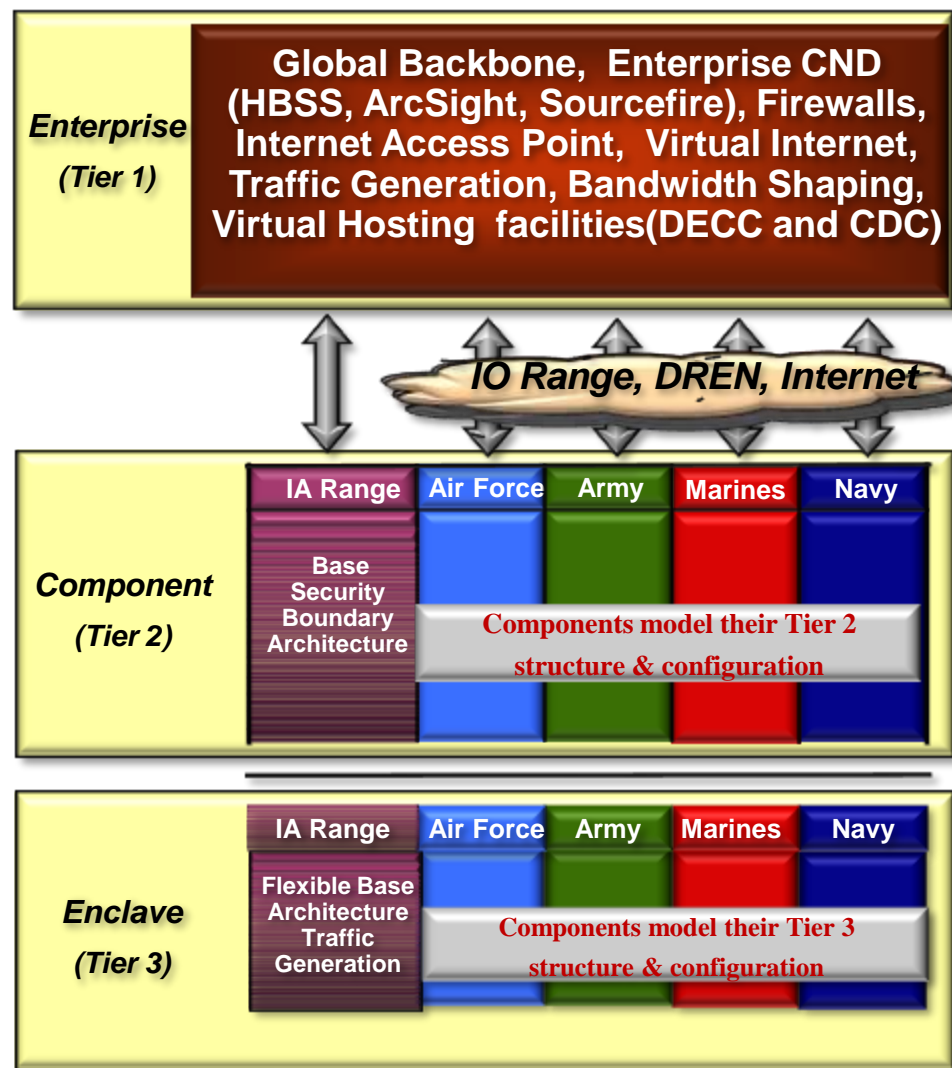   - **Homeland Security Presidential Directive-23**

- ▶ **Roles**
    - **DISA :** integrator and oversight; provides the representative architectures, tools and technologies to enliven the Range capability set to replicate GIG Tier 1 services.
    - **HQMC C4:** Executive Agent and Service Sponsor provides Program Management, C&A, program outreach and contract support
    - **DoD CIO:** CNCI project governance, oversight and reporting structure.

Joint Approach

- **Tier 1 – Enterprise**
  - **Global Backbone**
  - **Enterprise CND Tools**
  - **Enterprise Services**
  - **Virtual Internet**

- **Tier 2 – Component**
  - **Service Specific Boundary Defense**
  - **Connect Locally or Remotely (Tunneled)**
  - **Managed at Service/ Component Level**

- **Tier 3 – Enclave**
  - **Base Network Architecture**
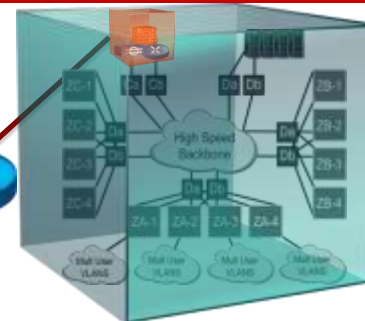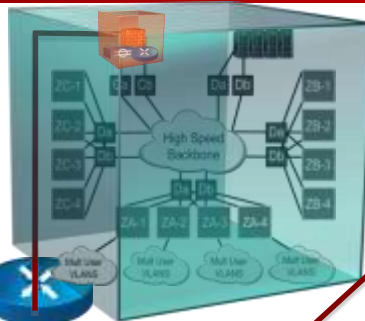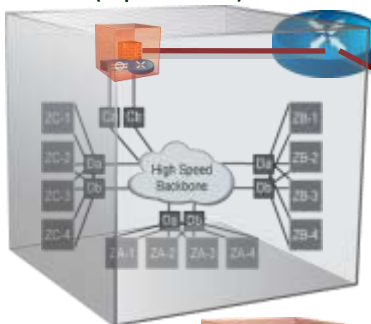 - **Populated with thousands of individual hosts**

Enterprise (Tier 1): Global Backbone, Enterprise CND (HBSS, ArcSight, Sourcefire), Firewalls, Internet Access Point, Virtual Internet, Traffic Generation, Bandwidth Shaping, Virtual Hosting facilities(DECC and CDC)

IO Range, DREN, Internet

Component (Tier 2): IA Range | Air Force | Army | Marines | Navy — Base Security Boundary Architecture — Components model their Tier 2 structure & configuration

Enclave (Tier 3): IA Range | Air Force | Army | Marines | Navy — Flexible Base Architecture Traffic Generation — Components model their Tier 3 structure & configuration

Interactive Base 1

Interactive Base 2

Other Ranges, Labs & Users

DREN
IO RANGE
INTERNET

REMOTE ACCESS

ESC (Representative)

AFRICA

EUROPE

CONNECTOR

GIG Backbone

MPLS Cloud

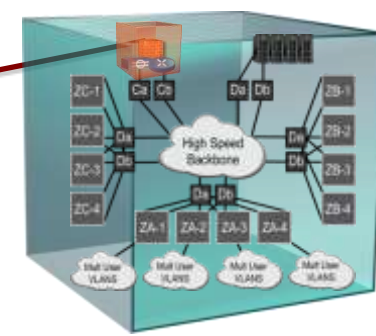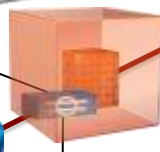S. AMERICA

N. AMERICA

ASIA

AUSTRALIA

Interactive Base 3

Untrusted DMZ
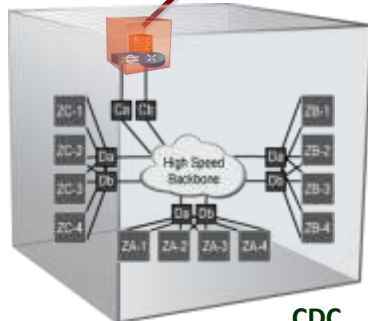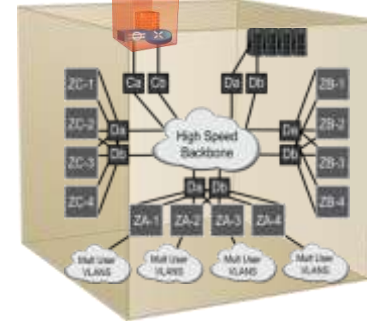
ISR

Trusted DMZ

IAP

Virtual Internet

CDC

(Representative)
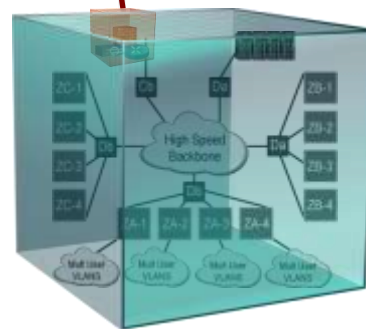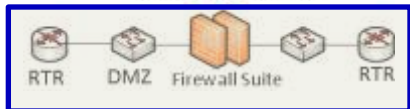
Interactive Base 5

Interactive Base 4

BOUNDARY SUITE

= RTR DMZ Firewall Suite RTR

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- DISA PEO-MA – Mini-Cyber Flag Exercises – Program Pilots, TTP Development

- DISA FSO – HBSS CNDSP 501 Training

- USAF – Tactical Communications Training Exercises

- USSTRATCOM – JCC LOE #3 Kinetic/Cyber Cop Integration

- USCYBERCOM – Mini- Cyber Flag Exercises

- NSA – Non-Persistent Desktop Browser Testing

- USA – Entry to Journeyman Level Cyber Warrior Training

- USMC – Command and Staff College Cyber Elective

- USN – SAGA Afloat Network Refresher Training for Shore Commands Testing

- DIA - Counter Intel Investigations Training

- OSD – Capstone Training support to Service Schools

- Vendor Product Evaluations

Pie chart values: 1.15%, 1.15%, 3.45%, 4.02%, 2.87%, 5.17%, 5.17%, 32.18%, 1.72%, 43.10%

Legend:
- DISA
- USMC
- DOT&E
- USA
- DIA
- USSTRATCOM
- USN
- NSA
- NSA/USCC/DISA
- USAF
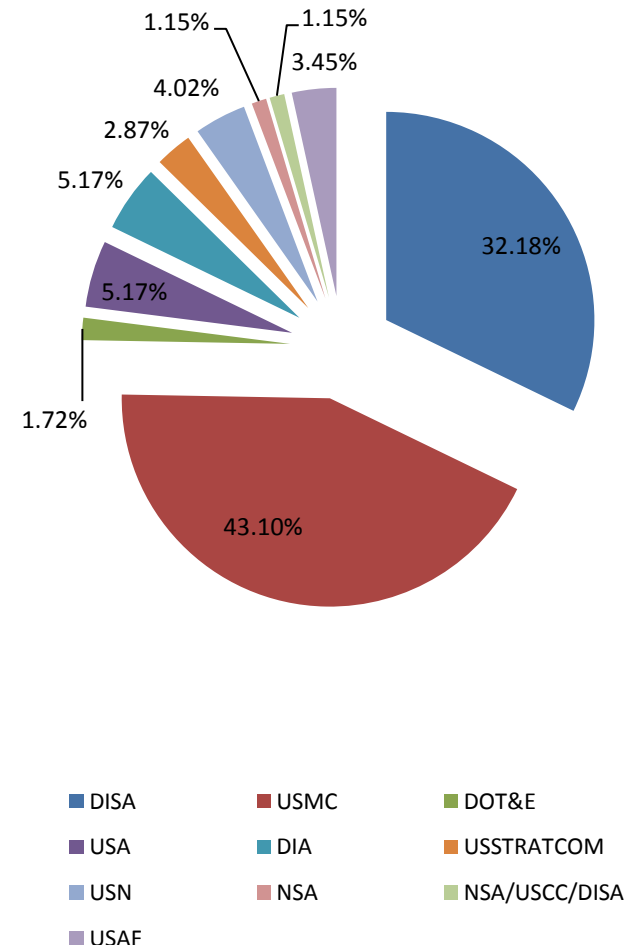
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DoD IA Range Website: https://c4.hqi.usmc.mil/IA_Range.asp

CAC Required