Command, Control, Communications, Intelligence and Networks (AFPEO/C3I&N)
Directorate Overview

AFCEA Air Force IT Day 2019

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Senior Materiel Leader
Enterprise Information Technology & Cyber Infrastructure Division
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Providing the Warfighter’s Edge
AFPEO/C3I&N
“Swim Lanes”

Crypto & Cyber
- Unified Platform
- LevelUP Code Works
- Joint Cyber Command & Control
- Cyber Mission Platform
- Foreign Military Sales

Aerial Networks
- RACN
- Link-16 Enhancements
- Common Data Link
- Full Motion Video
- Extension & Unified Relay
- Airborne Network Interface
- Foreign Military Sales
- Combat Identification Server
- AERONet

EIT/Cyber Infrastructure
- Air Force Network
- Air Force Public Key Infrastructure
- Theater Deployable Comm
- Cloud Hosted Enterprise Services
- Cloud One
- Enterprise IT as a Service

Special Projects
- Kill Chain-Campaign of Experiments
- Advanced Technology Branch
- Electronic Warfare Branch
- Developmental Planning

FAB-T Systems*
- FAB-T & PNVC

* Organize, Train & Equip Only
### C3I&N Directorate Portfolio & Mission Areas

#### Directorate Portfolio (Workload Master List):

<table>
<thead>
<tr>
<th></th>
<th>PEO/C3I&amp;N Program Execution AND O/T/E Responsibility</th>
<th>PEO/C3I&amp;N Execution ONLY (Other Directorates Have O/T/E Responsibility)</th>
<th>PEO/C3I&amp;N O/T/E ONLY (PEO/NC3 Program Execution)</th>
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#### Mission Areas:

- IT/Commoditized Infrastructure
- Enterprise IT Services
- Offensive/Defensive Cyber Weapon Sys
- COMSEC
- AFNET Ops

- Crypto Modernization Systems
- Tactical Aerial Networks
- Special Projects
- Data Links

### Directorate FY17-24 - approx $14.98B

- Aircraft Proc: $4,952
- Other Proc: $1,223
- Space Proc: $4

### Directorate Active Contracts

- RDT&E: 74
- Supply: 838

- Aircraft Proc: $139
- Other Proc: $3,288
- Space Proc: $255
- RDT&E: $3,020
- Other Proc: $4,952
I bring a book to work because it takes so long to get the system running. It shouldn’t take 30-40 minutes to get my work day started because I can’t log into my computer, and when I do, Outlook or the other applications freeze so then I have to restart about 8 times.”

– Acquisition Manager

The network is SO BOGGED down by permissions, certificates, software patches, background applications that are running, that the computer does not function. On average, it takes 30 minutes to do about 3 minutes of computer work. 15 of which is the desk top establishing itself each time you go to another workstation despite using that work station last week.”

– Fighter Pilot

Wait 1-2 months to get someone to come out. They show up without telling you and then say they’ll come back in a month.”

– EFB Manager

We have a NIPR computer with the Blue Screen of Death that’s been down for 4 months so far.”

– EMCS Work Leader

2 of our 5 computer systems are down and have been for months, including our shop’s primary tool accountability system. Putting in trouble tickets doesn’t seem to accomplish anything. Our comm flight is undermanned and overworked. It’s one of the most aggravating parts of my overall Air Force experience.”

– Aircraft Metals

Speed of connectivity to the network often slows to a point where work cannot get done.”

– Developmental Engineer

Computers go offline due to new software updates; and will be dead for weeks before the out-of-house Computer Support Technicians indulge us with a visit. Actually they demand that we bring tower or laptop to them.”

– Administrator

A large part of my day is wasted due to the inability of AF IT systems to allow me to do my work efficiently both in the office and while traveling...Simply put: the AF's lack of investment in IT makes me feel undervalued.”

– Special Ops Pilot
Current AFNET Situation

- 230+ AF organizations that influence the IT experience
- 41 AF orgs that acquire, integrate and operate AF Enterprise IT
- 80+ ATO Boundaries
- Duplication of effort
- Poor configuration across enterprise
- Years of underinvestment

Tough to build a Digital AF with what we’ve got!
AFLCMC/HNI’s Obsession: End User Experience

Goal: Deliver Transformational IT to the Air Force

- Create Integrated Program Office (IPO)
- Pull all aspects of user exp. into IPO
- Contract directly with leaders in IT Industry
- Challenge policies that detract from user experience
- The Digital AF Transformation depends on investing in foundational AF EIT programs!
Base Information Transport Infrastructure

BASE RECAPITALIZATIONS - replace critical wired backbone infrastructure and network equipment
Continued base recaps initiated in FY16, FY17 and FY18 at 100+ AF Installations (AD, AFR, ANG)

ENTERPRISE RECAPITALIZATIONS - replace EOS/EOL wireless infrastructure and network management systems
Continued Network Management System (NMS) installs initiated in FY18 (Solar Winds)
Continued Enterprise Wireless Recap installs awarded in FY18 at 170+ AF Installations

What’s Next:
Manage as a portfolio (i.e. UC, IPv6, 2FA, port security, access nodes)
Expand enterprise wireless to connect all users at point of mission need to include emerging user requirements (i.e. EFB, 5G)
Off-ramps to EITaaS

Cyber Security and Control System (CSCS)

SIPRNet ISN Modernization – Contract awarded on 29 May 19.

What’s Next:
Enterprise IT Service Management (EITSM) 2.5 for ticketing, config & asset management moving to AFPEDC, planning RFP release 2nd QTR FY20.
AFLCMC/HNI
Capability Delivered - 2019

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Air Force Intranet Control (AFINC)

- ANG Domain Name Server (DNS) deployment contract award, initiating deployment in FY19
- Completed Dual Path Resiliency (formerly Bottleneck) 10G deployments at Scott AFB & WP AFB

- What’s next:
  ➢ Award contract & deliver 10G throughput and enterprise network performance management to ~ 10-15 bases

Cloud One (Formally Common Computing Environment (CCE))

Migrated 36 Applications to CloudOne
Moved AF Data Services along w/ 145 TB of data to Azure
72 applications in the migration pipeline
48% reduction in GCSS-AF footprint

What’s next:
Re-compete cloud system integrator contract
IL6 will be available in FY20
Increased Support for Data Integration
Continue maturing new development environment
DevSecOps CI/CD Pipelines instantiated in CloudOne
Complete sunset of CGSS-AF Heritage Environment
Data VAULT transition to PEO C3I&N
Enterprise IT as a Service (EITaaS)

Awarded four Other Transaction Agreements (OTA’s) in support of EITaaS - Microsoft & AT&T (Network as a Service), Unisys (End User Services), Accenture (Compute & Store)
PEO & EIT Governance Board approved eight bases for EITaaS viability/scalability plan for prime contractors; Acquisition strategy plan completion by End of FY20
Compute and Store - IATT Approval received 4 Dec 19

What’s next:
Network as a Service (NaaS):
Established ATO with AF AO and ATC with DoD AO
First EITaaS ORR successfully completed in Nov 2019 for Buckley AFB
Initially three bases per Service Provider: Buckley, Offutt, JBER for AT&T and Cannon, Maxwell/Gunter, Hurlburt for MSFT
End User Services (EUS):
Improved security stack that will migrate a vast majority of IT resource needs from EUDs to application servers
Streamlining of GPOs on endpoint systems to mission specific needs through centrally located management, freeing up local base management

Emergency Mass Notification System (EMNS)

DISA Cloud Access Point (CAP) Connection 8 Oct 18
MAJCOM with Training completed 8 Feb 19
Integrated the Giant Voice at 80 different bases

What’s Next:
Continue integrations at remaining 84 bases & improving user experience
EMNS Statement Of Records Notice (SORN), & Paperwork Reduction Act (PRA), coordinated through DoD privacy and Office of Management & Budget (OMB) privacy
Air Force Data Services (DS)

Migrated to Cloud One Azure GovCloud Apr 2019
20 TB data from 49 source data systems
39 Mission applications and 30K users to include:
  Logistics, Installations, and Mission Support
  Enterprise View (LIMS-EV)
  Positive Inventory Control (PIC) Fusion
  F-35 User IT Data Exchange Service (UIDES)
  Contracting Business Intelligence Service (CBIS)

What's Next:
Recompete Data Services Sys Integrator contract Sep 2020

Cloud Hosted Enterprise Services (CHES)

Deployed email & skype to all AF CONUS users except NCR and medical, OCONUS migrations underway (630K+ email accounts)
All 700K+ CONUS users activated for OneDrive
AETC, AFSPC, AFOSI Sharepoint Migrations complete
Rolled out Microsoft Teams to all CHES CONUS users

What's Next:
Zero Stack implementation
External access to non-DoDIN users for SPO and Teams
Expanding Teams capabilities to mobile devices
E3 O365 license cutover (addition of new services like PowerBI)
Continued SharePoint Online site migrations (AMC, ACC, AFMC)
C3I&N...In Synch w/ Digital AF Vision

C3I&N Delivering Capability
EITaaS Risk Reduction
IT Infrastructure
Cloud Migration
Cyber Systems
DevSecOps
...and more...

Delivering Capability Consistent with the Future Digital Air Force!

Deliver...Innovate...Grow...D.I.G. In!
Multi-Domain Operations are not viable without the Digital Air Force
HNI FY19 Strategic Goals

1. Award all EITaaS RRE efforts by 2nd Qtr 2019 – C&S awarded Jun 19
   Tyndall rebuild effort through an UCA – IOC by Mar 19 IAW COMACC request
2. Migrate 100 applications to CCE – Not enough funds, expect 39 by end of CY19
3. Deliver ALL O-365 services to ALL USAF users
   SharePoint Online and Skype for Business to CONUS by 31 Dec 2018
   40TB of SharePoint data migrated to SharePoint Online – FY20 Goal of 5 MAJCOMs
   Microsoft Teams integration is a priority – Soft roll out to entire AF 26 Jul 19
4. Realign portions of AF Cyberspace Defense (ACD) from HNI to HNC
5. Realign PKI SPO and AF Directory Services (AFDS) from HNC to HNI
6. Award Logistics Rapid Acquisition Contract (LRAC) – FY20 Goal
7. Award SIPR modernization contract – Contract awarded Jun 19
8. Complete Dual Path Resiliency at Scott & WPAFB – 27 Jan 18 & 2 Mar 19
9. Deliver Data Integration and Machine Learning capabilities
   – FM Data Integration on contract; CDO ref architecture in Cloud One plan developed
10. Deliver LIMS-EV in CCE – Go live on 17 Apr 19
11. EMNS to 95% of AF users – Completed 31 Jul 19

FY19 WAS A BANNER YEAR!
HNI FY20 Goals
Programmatic

- EITaaS—Post-RRE acquisition strategy approved
- EITaaS—add Spangdahlem & Pope for viability, begin scalability phase
- Cloud One—3 DevSecOps pathfinder environments available for agile/CICD activities (containerized)
- Cloud One—IL6
- Project Phoenix (Tyndall)—Phase 3 contract award and contractor ops begins
- Cloud One—Expand beyond business systems to C2 & weapons systems
- ERP—MROi services provided & cloud strategy approved, award post-G2 contract
- Cloud One-HmC—fully bedded down in HNI, nuances of best practices understood/document
- CHES/EIS—Implement Zero Stack, SPO migration to 5 MAJCOMs, Teams to FOC, O365 remote access, & PowerBI Pro integration
- Data Services—Award post-G2 contract – re-brand and showcase DS infrastructure capabilities
- Data Integration—Implement CDO Data Reference Architecture within Cloud One, transition Smart FM into Cloud One CDO-compliant architecture
- Cloud One—Hospice Zone available to customers
- Cloud One—Sunset GCSS-AF
- SIPR Modernization—ATO approval, first MAJCOM option awarded
- Identify Credential and Access Management (ICAM) – Establish HNI ICAM working group and architect/plan ICAM convergence with HNI programs
- Connectivity SPO stand up decision (future strategy for BITI)
- Cloud One—Develop plan for Organic CSSP capability
- AFINC—Dual Path Resiliency contract awarded & three Bottleneck Lite bases implemented
- EUX Triage team established in conjunction with Chief Experience Officer & 24th/ACC efforts
- Cloud One—Mobile Storefront contract award
HNI - Rapidly Getting Latest Tech to Warfighters: Key to the American Military Advantage

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