Enterprise Mobility Management (EMM) – More Than Just Voice and E-mail

AFNIC Enterprise Services

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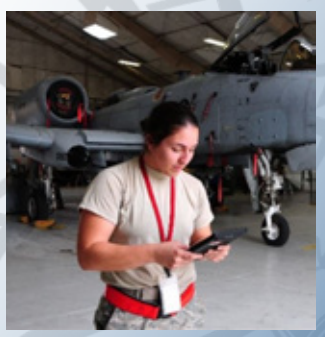
UNCLASSIFIED

Agenda

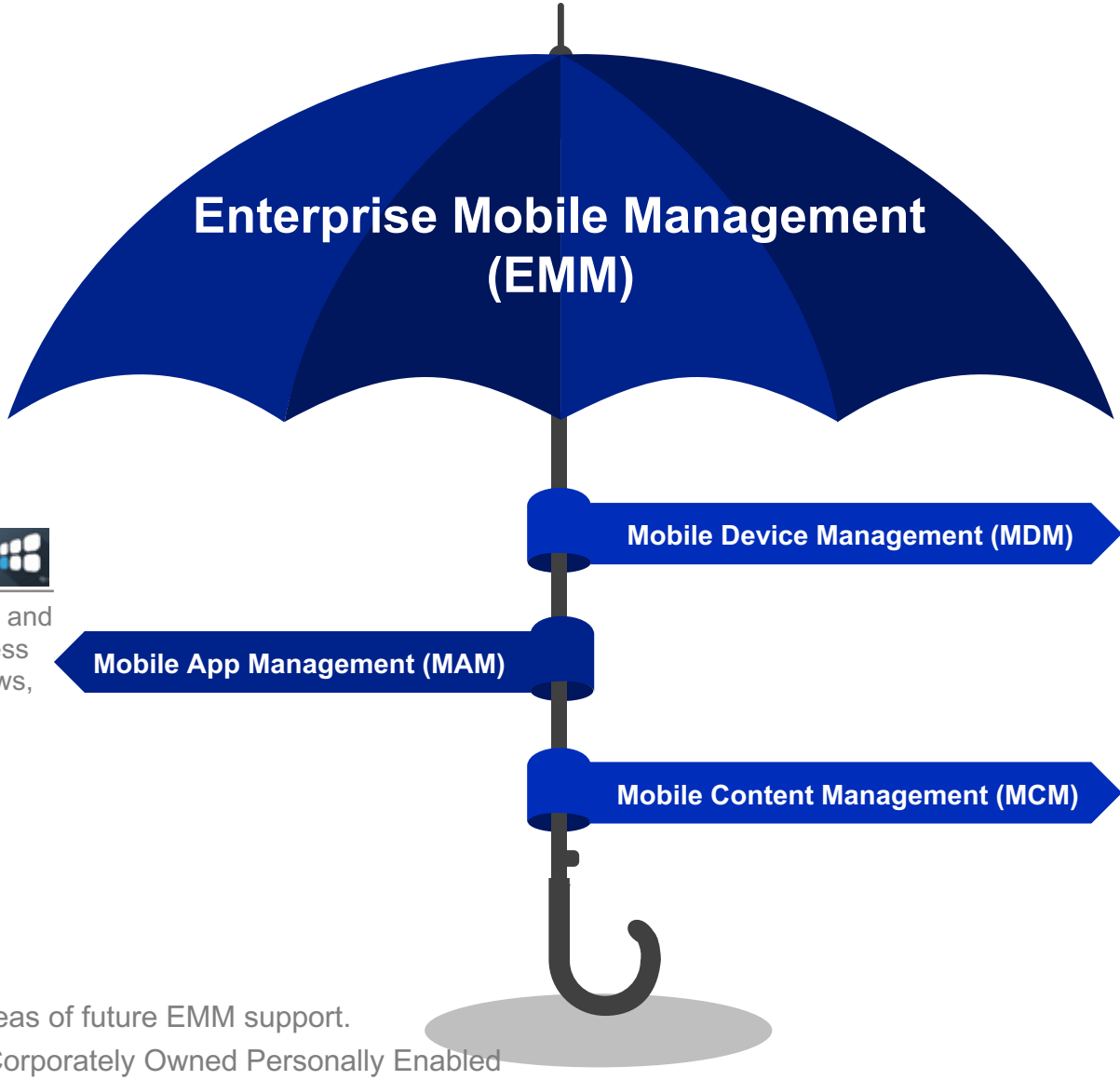
- Evolution of AF Mobile Workforce
- Key Industry Terms
  - Mobile Device Management (MDM)
  - Mobile Content Management (MCM)
  - Mobile Application Management (MAM)
- End User Capabilities
- Enterprise Mobility Management (EMM)
- Future of EMM
- AFNIC Customers
- Other MAJCOM Use Cases
- Points of Contact

Evolution of AF Mobile Workforce

- **AF mobility has evolved over last two decades**
  - **Mobile data/voice convergence began in early 2000s**
  - **Laptops w/remote access expanded mobility to include access to shared drives, .mil websites, and AF/DoD applications**
  - **More-capable cell/Wi-Fi phones & tablets brought office-type functionality to AF users to bridge the connectivity gap**
  - **AF adapted w/changes through adoption of EMM; now evolving further by leveraging cloud technology**



Key Industry Terms



Cross-Platform Control and Visibility Support:

Supports both COPE** & COMO*** use cases

Secure Management and Distribution of business critical apps, workflows, and processes

Securely Access, Edit, Store, and Share business content from: SharePoint, OneDrive, Box, etc.…

Notes: *Depicts areas of future EMM support.

**COPE: Corporately Owned Personally Enabled

***COMO: Corporately Owned Mission Only

Mobile Device Management (MDM)

- **BlackBerry Unified Endpoint Management (BUEM)**
  - **Provides device level protection by applying and ensuring compliance with required Security Technical Implementation Guide (STIG) settings**

Single Administrative Interface

Delegated Rights (DR) Tier 1-3

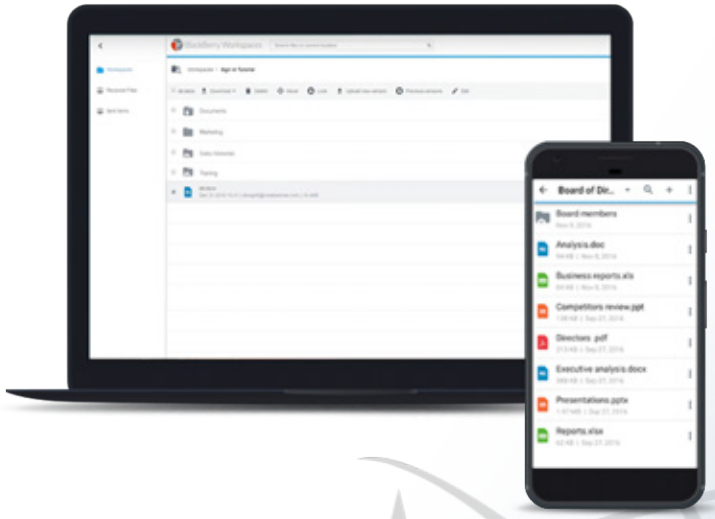
User Self-Service Portal (SSP) Tier 0

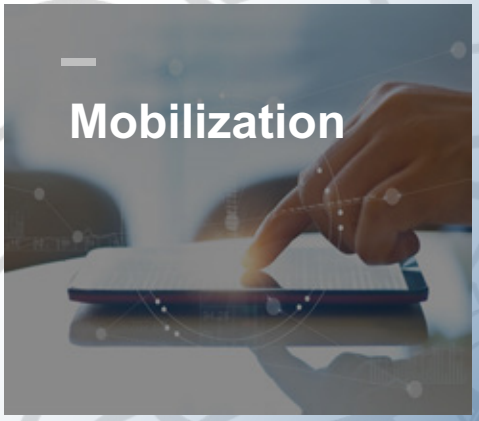
Endpoints	Ownership Models	Operating Systems	Containers/Frameworks	Applications	Content
	BYOAD (Bring Your Own Approved Device) **COPE** (Corporate Owned, Personally Enabled) **COMO** (Corporate Owned, Mission Only)	iOS macOS	BlackBerry Dynamics Microsoft Intune Samsung Knox Android Enterprise iOS Managed Apps APPCONFIG COMMUNITY	BlackBerry Work Office 365 Windows Store for Business **Line of Business**	BlackBerry Workspaces OneDrive for Business box SharePoint **ECM Repositories**

Mobile Content Management (MCM)

- **Mobile Content Management extends the enterprise by enabling collaboration more efficiently and securely**

- **Share large files to permissioned users across any device or platform**
- **Collaborate in digital workspaces in real time with multiple users**
- **Access, edit, annotate and share files on desktop, mobile and the web**





Mobile Application Management (MAM)

Managed Apps

- Managed applications can span the native and container sides of the device

ISV Partner Apps

3rd party mobile apps

- Dynamics SDK – A single secure platform for 3rd party developers
- 100+ Dynamics apps offered by ISV partners

Personal Enablement

- Corporate data kept securely on the managed side enabling personal enablement

BlackBerry Apps

BlackBerry provides the best user experience supported by the best mobile security

- Work – enterprise grade email which simplifies key tasks
- Access – a secure browser for any device

Custom Apps

Software Development Kits (SDKs) to enable faster, more secure, easily integrated app development

- Dynamics SDK – A single secure platform for internal developers

End User Capabilities

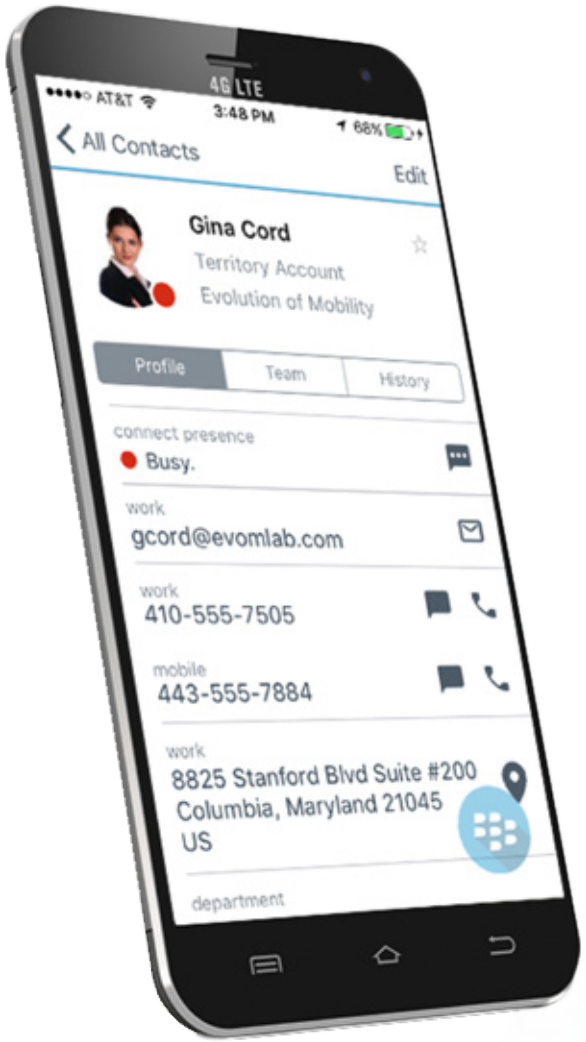
WORK
All-in-one email, calendar, contacts, docs

ACCESS
Intranets, corporate web apps, CAC enabled Websites

***CONNECT**
Instant messaging and file share

***NOTES**
Note-taking

***TASKS**
Organized to-do list



- Integrated solution
- UI designed for less clicks
- Integrates with Microsoft solutions
- Corporate data secured enabling personal enablement

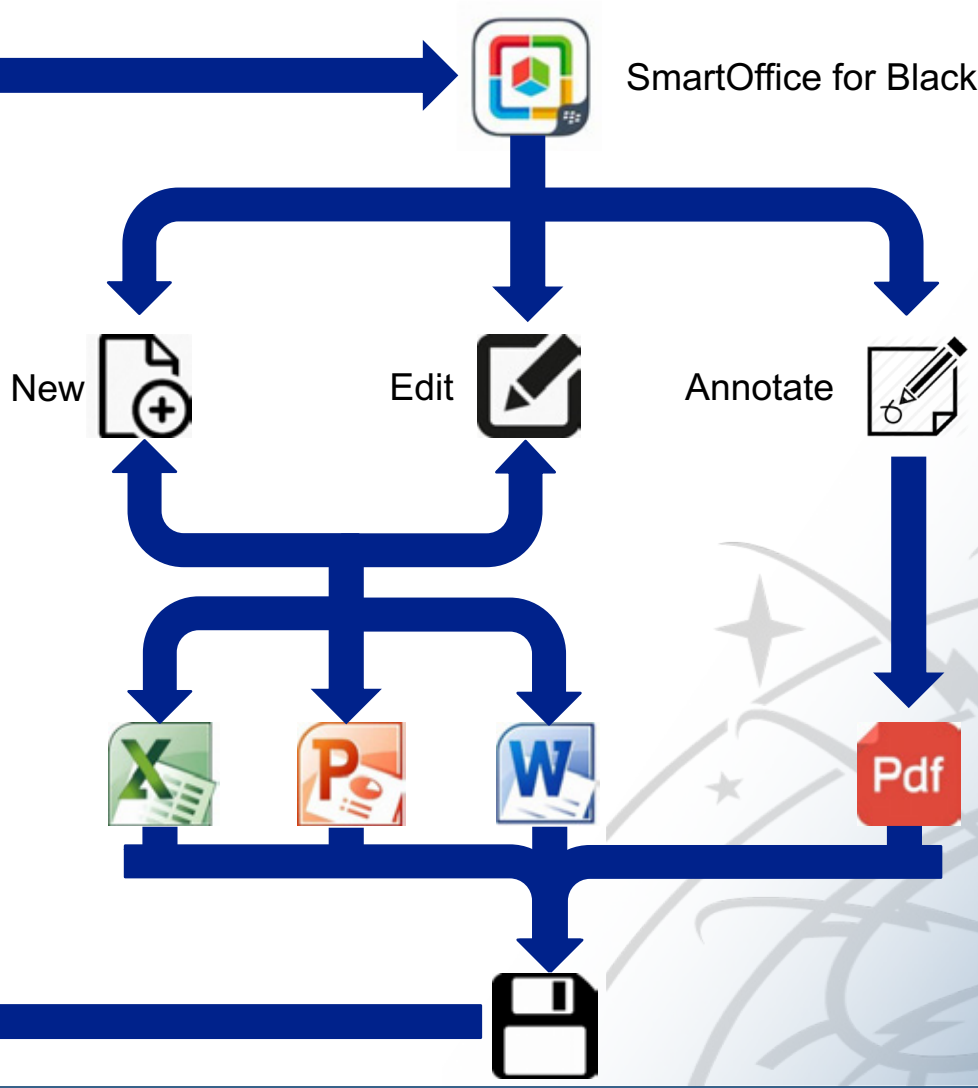
Notes: *Depicts areas of future EMM support.

End User Capabilities

Content Delivery

- Work
  - Email
- Docs (COPE)
  - Individual Content Manager
- Workspaces (COMO)
  - Bulk Content Manager

Collaboration Tools



Cloud Hosted Enterprise Services (CHES)

Skype for Business | Office 365 | SharePoint | OneDrive

Corporately Owned Personally Enabled (COPE)

...Providing MDM protection and mail synchronization services to ~22K COPE devices

Mobile Device Mgmt. MDM

IM & Presence

Enterprise Mobility Management (EMM)

Secure Browser

Mobile Content Management (MCM)

Mobility Air Force (MAF)

Combat Air Force (CAF)

...Providing MDM protection services to ~20K EFB devices

Electronic Flight Bag (EFB)

Corporately Owned Mission Only (COMO)

*eTools

Mobile Mission Kit (MMK)

* Potential AFNET EMM Case

Future of AF EMM

- **Integrate AF EMM into additional O-365 Cloud Offerings**
  - **Mobile chat (Skype for Business), Cloud user data storage (OneDrive), and collaboration (SharePoint Online)**

- **Move AF EMM Platform to Cloud or EITaaS**
  - **Currently AF EMM infrastructure hosted in AF APCs w/ h/w & s/w owned/operated by AF**
  - **Short/Mid-Term Goal: leverage cloud infrastructure; reduces AF hardware footprint; AF still retains software configuration/support**
  - **Long-Term Goal: fully leverage industry for EMM under EITaaS to eliminate need for AF to provide capability**

AFNet Customers

- **MAJCOM Use Cases**
  - **Currently Committed: 81K with 36K provisioned**
    - **Mobile Devices for Senior Leaders (22K)– All Commands**

- **Air Mobility Command (AMC)**
  - **Use Case(s): Electronic Flight Bag (EFB)**
  - **Device Count: 18,000**

- **Air Combat Command (ACC)**
  - **Use Case(s): EFB**
  - **Device Count: 13,000**

- **Air Education and Training Command (AETC)**
  - **Use Case(s): EFB**
  - **Device Count: 3,500**

- **Air Force Material Command (AFMC)**
  - **Use Case(s): EFB**
  - **Device Count: 300**

- **Air Force Global Strike Command (AFGSC)**
  - **Use Case(s): EFB**
  - **Device Count: 3,000**

AFNet Customers

- **MAJCOM Use Cases**
  - **Currently Committed:**

- **Air Force Reserve Command (AFRC)**
  - **Use Case(s): EFB/Mobile Mission Kit (MMK)**
  - **Device Count: 6,700**

- **Air National Guard/National Guard Bureau (ANG/NGB)**
  - **Use Case(s): EFB**
  - **Device Count: 5,000**

- **Pacific Air Force (PACAF)**
  - **Use Case(s): EFB**
  - **Device Count: 1,000**

- **United States Air Force Europe (USAFE)**
  - **Use Case(s): EFB**
  - **Device Count: 1,000**

Potential AFNet Customers

- **Additional MAJCOM Use Cases**
  - **Known Potentials: 41K Devices**

- **Air Force Special Operations Command (AFSOC)**
  - **Use Case(s): EFB**
  - **Device Count: 3,000**
  - **Currently Using: Air Watch**

- **Air Combat Command (ACC)**
  - **Use Case(s): eTools**
  - **Device Count: 13,000**
  - **Currently Using: MobileIron**

- **25th Air Force**
  - **Use Case(s): Intel**
  - **Device Count: 9,000**
  - **Currently Using: MaaS360**

- **Headquarters Air Force/Staff Air Force (HAF/SAF)**
  - **Use Case(s): eTools Lite**
  - **Device Count: 16,000**
  - **Currently Using: Apple Configurator 2**

Other Use Cases

- **Known Unknowns:**
  - **Security Forces**
  - **Mission Support Squadrons**
  - **Personnel**
    - **Active**
    - **Retired**
  - **Civil Engineering**
  - **Medical**
  - **Finance**
  - **Mission Planning**
  - **USAF Potential Growth: 125,000 – 500,000**
- **Anywhere you see info referenced is a candidate**
- **Device capabilities are ever-growing to enable composition**

Points Of Contact

- **Functional Lead:** Mr. Matthew Moore, DSN 692-7484
- **AFNIC:**
  - Program Manager: Mr. Dennis Polansky, 779-5844
  - Project Lead: Mr. Caldwell Roberson, 779-6436
- **COPE MAJCOM Leads**
  - AMC - SMSgt Chad Warner, 779-6927
  - ACC - Maj. Eric Thonvold, 575-5939
  - AFGSC - Lt. Col Daniel Henderson, 781-3373
  - AFMC - Mr. Chris Straka, 787-2009
  - AETC - Ms. Julie Barrow, 487-6727
  - AFSOC - Maj. Thomas Goble, 579-2291
  - AFRC - Maj. Clifton Linde, 497-1213
  - AFDW - Mr. William Schulz, 612-0887
  - PACAF - TSgt James Keammerer, 315-447-5018
  - USAFE - MSgt Roberto Alanis, 314-487-0507

Points Of Contact (cont.)

- **COMO MAJCOM Leads**
  - Mobility Air Force (MAF)
    - Maj. William Street, 576-7109
  - Combat Air Force (CAF)
    - Lt. Col Timothy Saxton, 575-1603
  - AFRC (MAF / CAF)
    - Mr. Robert Nethaway, 497-1129
  - AETC (Training)
    - Mr. Michael Kilbourn, 487-4434
  - AFGSC
    - Maj. Wayne Johnson, 781-3456

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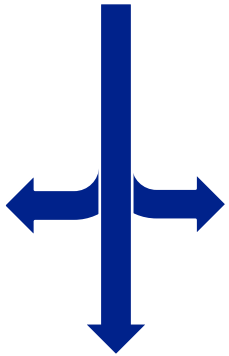
Key Industry Terms

Enterprise Mobility Management (EMM)

A comprehensive term used to describe the people, processes, and technology in place to provide secure and reliable access to AF mobile devices.

Mobile Device Management (MDM)

Cross-Platform Control and Visibility Support: iOS, Android, Win 10, BlackBerry, KNOX
Supports both COPE** & COMO*** use cases



Mobile Content Management (MCM)*

Securely Access, Edit, Store, and Share business content from: SharePoint, OneDrive, Box, etc.…

Mobile Application Management (MAM)*

Secure Management and Distribution of business critical apps, workflows, and processes

Notes: * Depicts areas of future EMM support.
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Mobile Device Management

- **BlackBerry Unified Endpoint Management (BUEM)**
  - **Provides device level protection by applying and ensuring compliance with required STIG settings**
    - **Access to gov't data protected via secure container**
  - **Corporately Owned / Personally Enabled (COPE)**
    - **Device passcode restrictions, control of biometrics, managed vs. unmanaged data, etc.**
  - **Corporately Owned / Mission Only (COMO)**
    - **Similar device protection to COPE**
    - **Customizable protection profiles**
      - **Mobility Air Force (MAF) / Combat Air Force (CAF)**

Mobile Application Management

- **BlackBerry UEM hosted Enterprise App Store**
  - **Managed Apps (COTS / GOTS) pushed to device**
    - **Required / Optional**
    - **Native app store removal possible on supervised devices**
  - **GOTS App hosting platform**
    - **GTIMS, Mobile Mission Kit (MMK)**
- **Developing comprehensive app approval process for apps intended to be hosted on AFNET EMM**
  - **Leverage AFNIC Software and Application Certification Assessment (SACA) team**
  - **Software Certification Memo**

Mobile Content Management

- **BlackBerry Docs (COPE)**
  - **View, create, and edit docs via mobile app.**
    - **Future integration w Cloud hosted SharePoint & OneDrive**

- **BlackBerry Workspaces (COMO)**
  - **Protects content "outside the firewall"**
  - **Securely manages info distribution when delivered to mobile device**
    - **Digital Rights Mgmt, Access to Web browser w/ no license**
  - **Pilot testing underway with ACC, AMC, USAFE, PACAF and AFRC.**
  - **Initial deployment late Jun 18, full operational use Oct 18. Designed to initially support 50K devices.**

Putting "Enterprise" Into EMM

- **AFNIC Led Major EMM Upgrade Project in 2017 with modernize Enterprise Mobility Platform**
  - **Provides secure web browsing, AFNet/cloud email, SharePoint access, document editing/posting, device agnostic support, etc.**
  - **Supporting 22K Sr Leaders world-wide**
  - **Currently expanding capability to support warfighter missions**
    - **~15K Mobility Air Forces EFBs supported; 18K expected**
    - **13K Combat Air Forces EFBs; migrations on-going**
    - **Projecting 20-35K devices from other functional communities moving over within next 3-6 months**

Use Case: EFB (COMO)

- **Overview**
  - **Electronic Flight Bag (EFB) – Corporately Owned Mission Only - is a mobile tablet (iOS today) that replaces ~120 lbs of paper for flight crew members**
  - **Government data resides in both managed and native applications; device configuration tightly controlled**
    - **Documents include:**
      - **Official government regulations**
      - **Flight Information Publications (FLIPs)**
      - **Tech Data**
      - **Normal & Emergency Procedures**
      - **Training Material**
      - **Crew Departure Papers**
      - **Up to 6,000 files per crew member**
      - **30,000-40,000 files in complete library**
      - **Significant portion of data updated every 30-90 days**
    - **Custom application development supporting**
      - **Forms automation**
      - **Weight and Balance assistance**

Roadmap

Strategic Goal 4; Objective 3

Project Objective

Modernize aging Good for Enterprise (GFE) solution with BlackBerry Unified Endpoint Management (BUEM) and collapse various disparate mobile solutions in use today.

Stakeholders

- **AFLCMC**
- **561 NOS**
- **83 NOS**
- **All MAJCOMs**

Issues / Risks

- BlackBerry UEM 12.9 "QF" install issues
  - -- BlackBerry provided resolution, ASI schedule in coord.
  - -- Impacts to ACC DEP EFB device provisioning

Dependencies

- N/A

Key Discussion Points

- 21,641 COPE devices provisioned
- 15,804 EFB devices provisioned
- GFE app removed / services disabled on 68/70 servers.
- Focused on continued support for MAJCOM functional communities (EFB / eTools)

Project Status

On Track

Reqs | Plan | Design | Test | Field

Project Team Leads

IPL: Caldwell Roberson
PM Support: Jared Yungvirt
Design Lead: Sameep Sanghavi
Test Lead: Rick Quigley
Ops Lead: MSgt Joseph Barnes
SME: Shane Smith

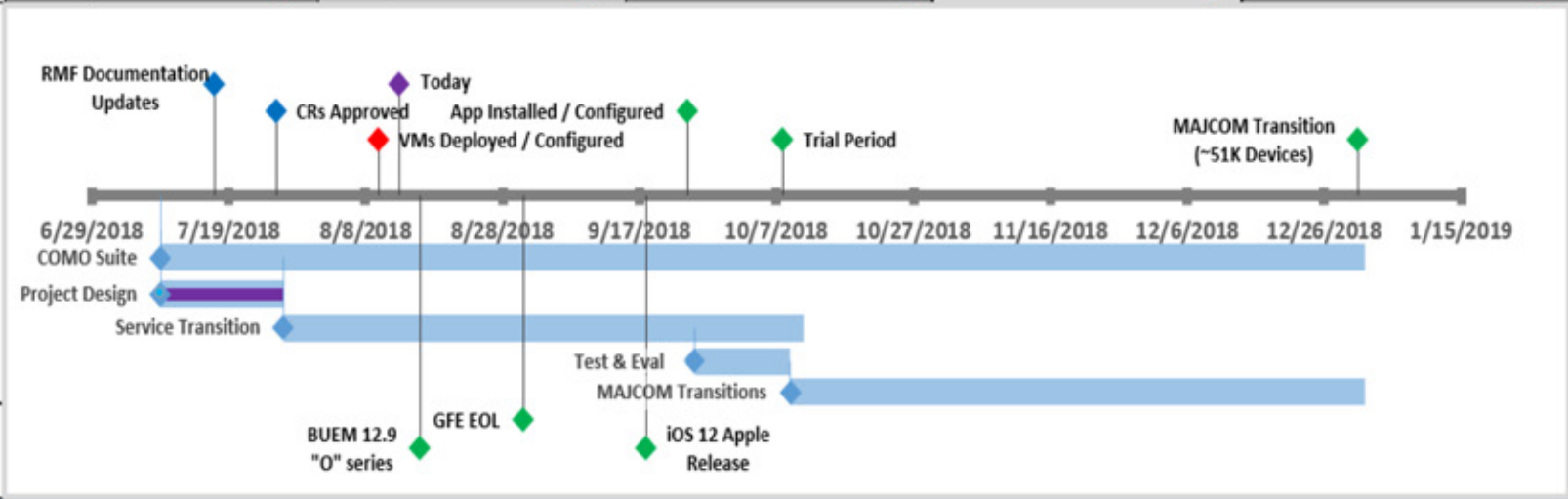
Resources:	Manpower:	HW/SW:	Facilities:	Contracts:	Processes:

Legend

- On Track
- At Risk
- Late or High Risk
- Complete

Planned Schedule

Actual Schedule



Use Case: EFB (COMO)

- **Use Cases Within a Use Case**
  - **Mobility Air Force (MAF) vs. Combat Air Force (CAF)**
  - **Training vs. Real World**
  - **Distinct Mission Requirements**
  - **Configuration Differences**
    - **Camera**
    - **Wi-Fi Profiles**
    - **Custom App Layouts**
    - **App Groups**
    - **Different Device Enrollment Programs**
    - **Different Volume Purchase Programs**