Joint Training Enterprise Technical Updates

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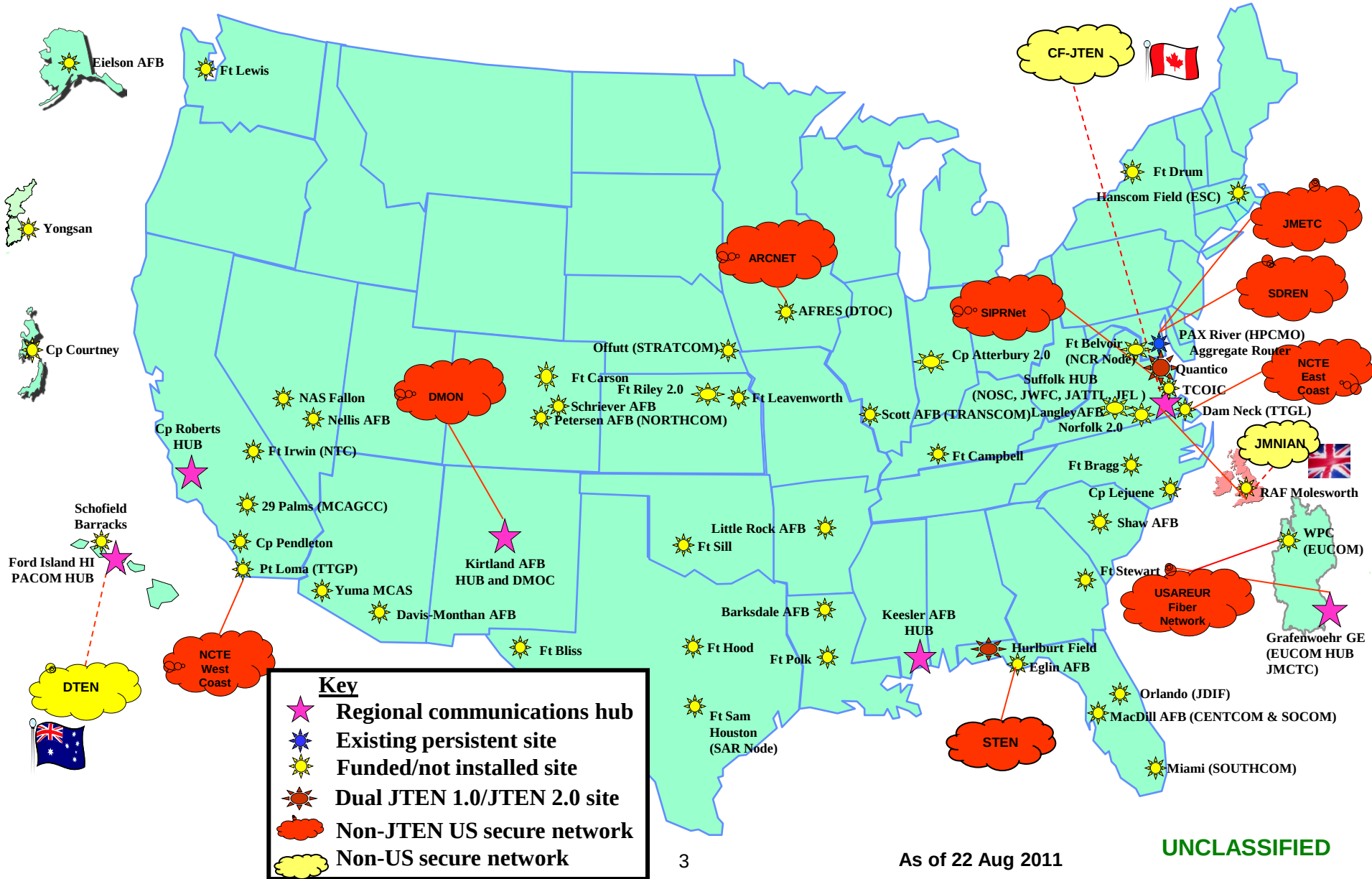
Joint Training Enterprise Network 2.0 Update

Current JTEN Sites

51 - Persistent sites + other networks
3 - Dual JTEN 1.0/2.0 sites
1 - JTEN 1.0 sites awaiting install
1 – JTEN site awaiting relocation
2 - FY11 JTEN 2.0 D. T. sites awaiting install



As of 22 Aug 2011

JTEN 2.0 Testing and Deployment

- JTEN 2.0 is completing a final testing phase prior to general deployment
- Operational testing is currently underway and is expected to complete NLT end of November 2011
- Replacement of JTEN 1.0 sites with JTEN 2.0 follows end of operational testing
- Replacement of final JTEN 1.0 site with JTEN 2.0 equipment NLT end of FY13
- JTEN 1.0 and 2.0 network will exist side by side and fully-interoperable in throughout the transition

JTEN 2.0 Risks

- **FY12 Site Equipment (*schedule risk*)**
  - **Could become *cost risk* if project procurement pushes beyond FY13**
- **DISA Roll-out of Advanced IP Services Network (*schedule risk*)**
- **Pre-OT Training (NOSC & Engineers) (*schedule risk*)**
- **JFCOM disestablishment (decreasing financial & personnel resources)**
- **JTEN 2.0 project completion may be pushed out past FY 13**
- **Risk Mitigation Strategy**
  - **DISA has announced ability to extend sunset of DATMS to FY15 & has negotiated contract with ATM vendor to extend support to FY15**
  - **DISA still highly motivated to sunset DATMS as soon as possible**

Joint Live Virtual Constructive Federation Update

JLVC Objectives

1) **Provide a production level LVC architecture that can support Joint and Service Level Training exercises at reduced cost**
   - Capability is in use and must support immediate exercise requirements as well as long range goals

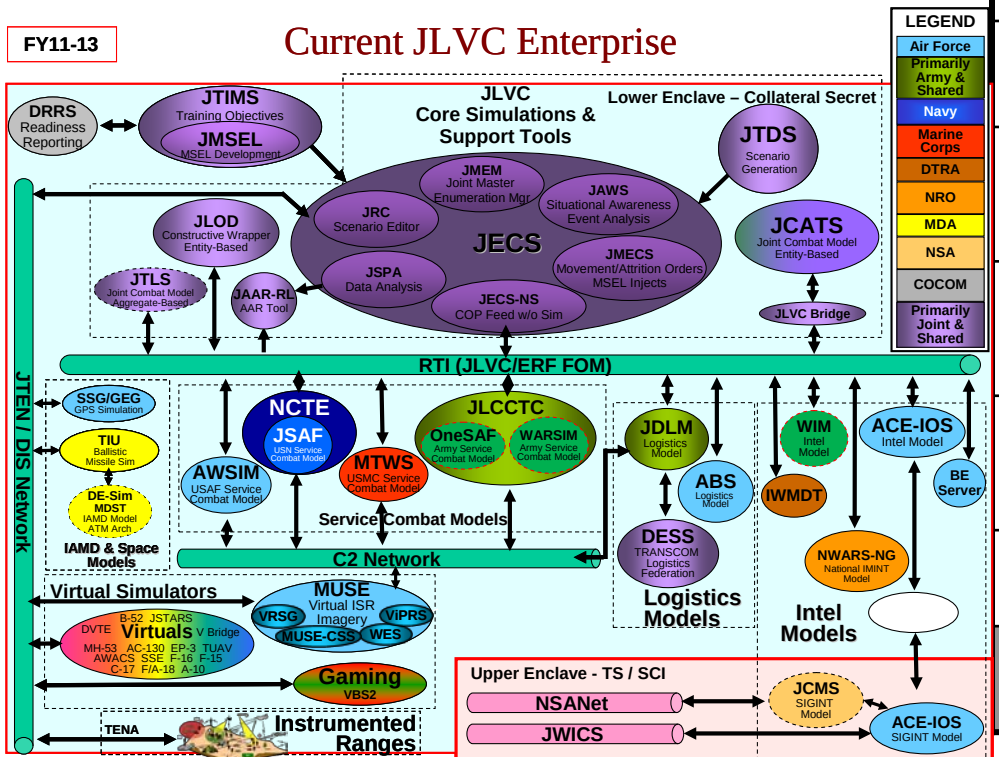
2) **Provide a useful technical specification to support efforts across the training community**
   - Enable Home Station LVC Training
   - Support Cross-Service Training

JLVC Enhancements

- **Expanding the JLVC to provide a unified architecture for Tier 1-4 Training:**
  - **KORCOM Requirement**
  - **Assist the Army in moving to one architecture**
  - **Common specifications for Joint and Coalition**
  - **Modular Mix and Match Capability**
- **Next-Generation M&S Proof of Concept**
  - **SOA constructs**
  - **Cloud Computing**
  - **Web Accessibility**
- **Light cost effective Joint Software**

FY11-13

Current JLVC Enterprise



Enhancement List for JLVC

JLVC 5.0 (Oct 2011)	JLVC 6.0 (Oct 2012)
• Amphibious Ops/MTWS Integration	• JLVC Cross Domain Guard and Rule Set
• Reduced JLVC bandwidth (50%)	• KORCOM Integration
• Data Configuration Management across M&S Training Community	• Rapid Scenario Gen – Web-Services development & Civilian infrastructure networks
• JTLS Integration (MUSE/JTDS)	• Next-Gen Prototyping Decomposed Simulation
• Realistic Threat Signatures (IADS networks)	• Cloud Computing and Virtualization Experimentation
• Enhanced Logistics - Shared Supplies and Convoys	• Enhanced Intelligence WIM Integration, Communications Play
• Enhanced Rapid Scenario Generation	• Modular Mix and Match Integration of simulation activity and MSEL events
• High res BMD Sensors (DE Sim Integration	• Enhanced Joint Logistics
	• Terrain Service Prototype

KORCOM M&S Update

USFK's Stated Requirement

- A jointly accredited, supported, and funded federation of constructive models capable of satisfying all US training requirements in the Korean Theater of Operations
- US models interoperable with the ROK-developed Korean Simulation System (KSIMS) in a Joint battlespace that provides reasonable combat results
- Important dates:
  - OPCON Transition: 17 Apr 12 – Shifted to 2015
    - USFK still determining impact on M&S development planning

Problem Statement

- USFK uses a locally modified, legacy M&S architecture supported by the US Army and USAF for a number of years resulting in redundant support costs. The US Army has halted development on the primary constructive simulation in this architecture, the Corps Battle Simulation (CBS). The Army will start transitioning USFK to WARSIM as the new primary constructive maneuver simulation. The US Navy, the USMC and JFCOM M&S Architectures are not currently compatible with the legacy architecture used by USFK

- The US Army intends to maintain only 1 primary M&S Architecture capable of supporting the full range of Army Training needs and compatible with Joint Technical specifications

- USFK requires a releasable M&S Architecture as well as NATO partners; however, the current JLVC Federation is not completely releasable

Task Statement

- DD J7 JCW works with the Services, USFK and ROK partners to develop a single integrating Live Virtual and Constructive M&S architecture capable of supporting the stated requirements.

Overarching Strategy

- ***Use KORCOM investment to move the DoD M&S Community forward!***
- Avoid looking at the KORCOM problem in isolation, ***develop the Unified M&S Architecture***
- Execute Community wide Data Alignment and Configuration Management
- Execute necessary preliminary M&S capabilities with FY11 KORCOM funding
  - **REL ROK JSAF**
  - **IAMD/MW M&S Training Capability**
  - **Integration of WIM intel model into JLVC**
  - **Implement 1516 HLA Evolved conversion across all Service models**
  - **Web-Service Prototyping**
  - **Joint Model Scalability and Timescale enhancements**
  - **Support Common CDIS solution that includes REL ROK requirement**

Summary and Key Take Aways

- Significant history and documented requirements in reference to the USFK/KORCOM problem
- COA to solve the problem, moving to a Unified M&S Architecture has the concurrence of all Service stakeholders, OSD, JCS.
- Unified Architecture not only solves the USFK problem, but drives the future of M&S within all of DoD.
- Only issue is the proposed ground model, WARSIM is a potential risk.
- Decision point for WARSIM integration is post UFG13 (Jun/Jul FY13)
- USFK funding declines significantly after FY13
- ***FY11 and FY12 USFK funding activities would make a significant leap forward to bringing Joint , Navy, Air Force, Marine Corp, and potential Coalition M&S capabilities to the Unified Architecture.***

Afghanistan Mission Network Training Federation Update

Afghanistan Mission Network (AMN)

Description

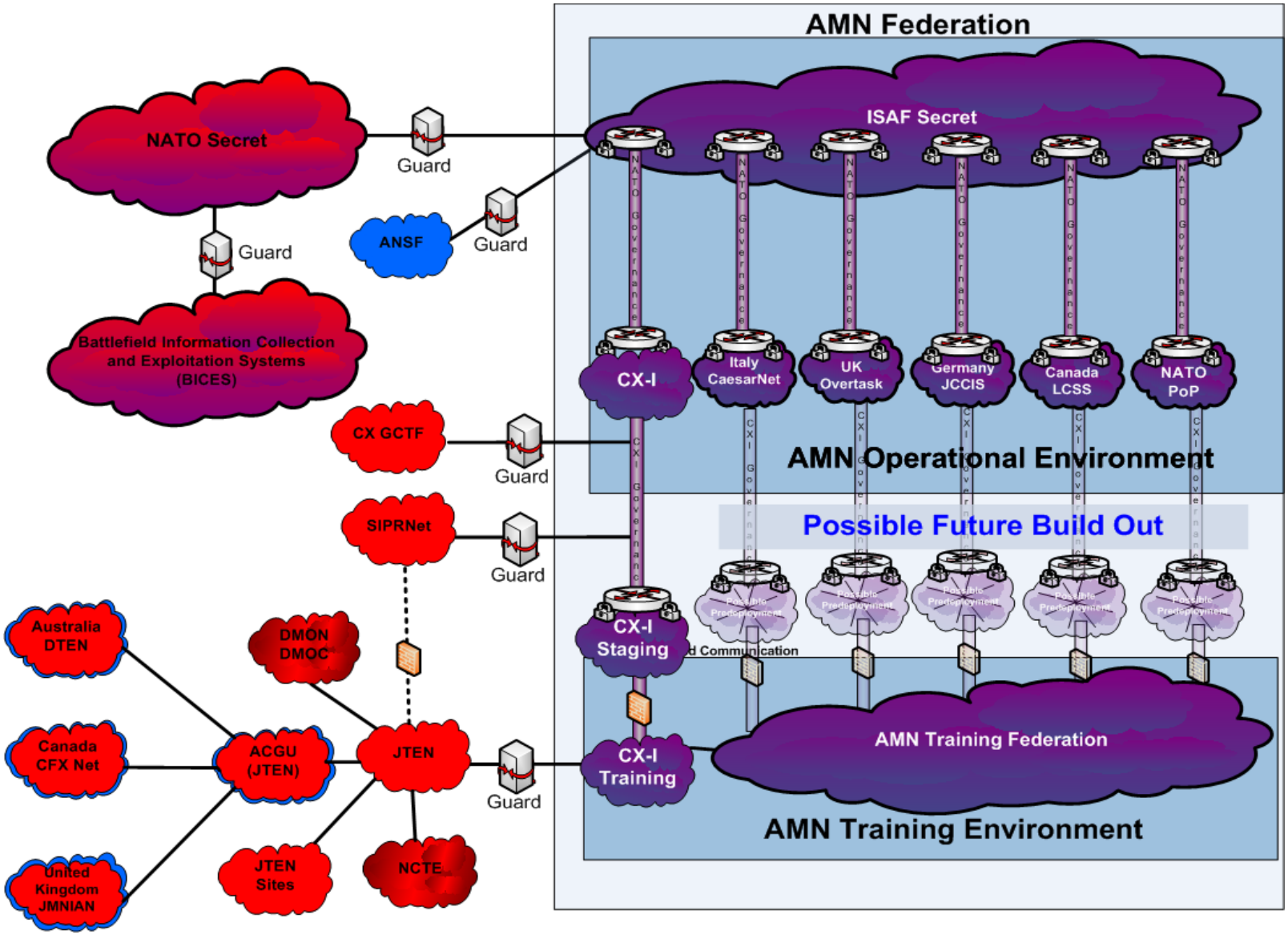
- Primary C5ISR network for International Security Assistance Force (ISAF) Afghanistan operations
  - NATO Owned ISAF Secret Network
  - 49 Nations (Flynn 2011)
  - Authoritative data source
    - Including AD
- CENTRIXS ISAF (CX-I) is the US extension into the AMN
  - USCENTCOM Owned ISAF Secret Network
- AMN-Training Federation (TF) provides coalition and Joint training for forces deploying to the Afghanistan mission area
  - CX-I Training Federation is the U.S. Extension of AMN-TF
- Warfighter training in a credible, secure environment without negative impact to Operational network performance or mission success

AMN Accomplishments and Way Ahead

- February 2010 to January 2011
  - Built AMM-TF from concept to initial operational capability (IOC)
  - 11 months!
  - Unified Endeavor 11-2 , Mission Rehearsal Exercise
    - Achieved initial operational capability
- Overwhelming user demand for 24/7/365 operations
- June 2011: UE 11-3, achieved full operational capability
- Way ahead:
  - LT GEN Powers, Australia Chief of Joint Operations, requests AMN-TF to Australia
  - Build on the success of UE 11-2 and 11-3
    - Establishes foundation for future mission networks

"The commander of the International Security Assistance Force (ISAF) in Afghanistan has recommended that the network architecture approach established in that country be developed for future alliance and coalition operations and exercises." 22 August 2011.

AMN Architecture



Australia, Canada, Great Britain and United States Training Enclave Update

Background Before 2010

- 2003 AS/US Interoperability Study conducted
- 2006 Effort to connect National training networks begins
- 2007 JTEN Connects to DTEN for Talisman Sabre 07
  - JFCOM argued for similar connections to UK and Canada
- 2008 JTEN - DTEN, JTEN - JMNIAN use cases
- 2009 … May - Australia and UK CONOPS approved
- 2009 … Nations begin Australia, Canada, Great Britain and United States (ACGU) effort
- 2010 … Nations begin work on a multinational MOU
- 2011 … May - ACGU OPT and re-designed ACGU
  - July … TS 2011; Australia DSN C2 systems stimulated from JTEN

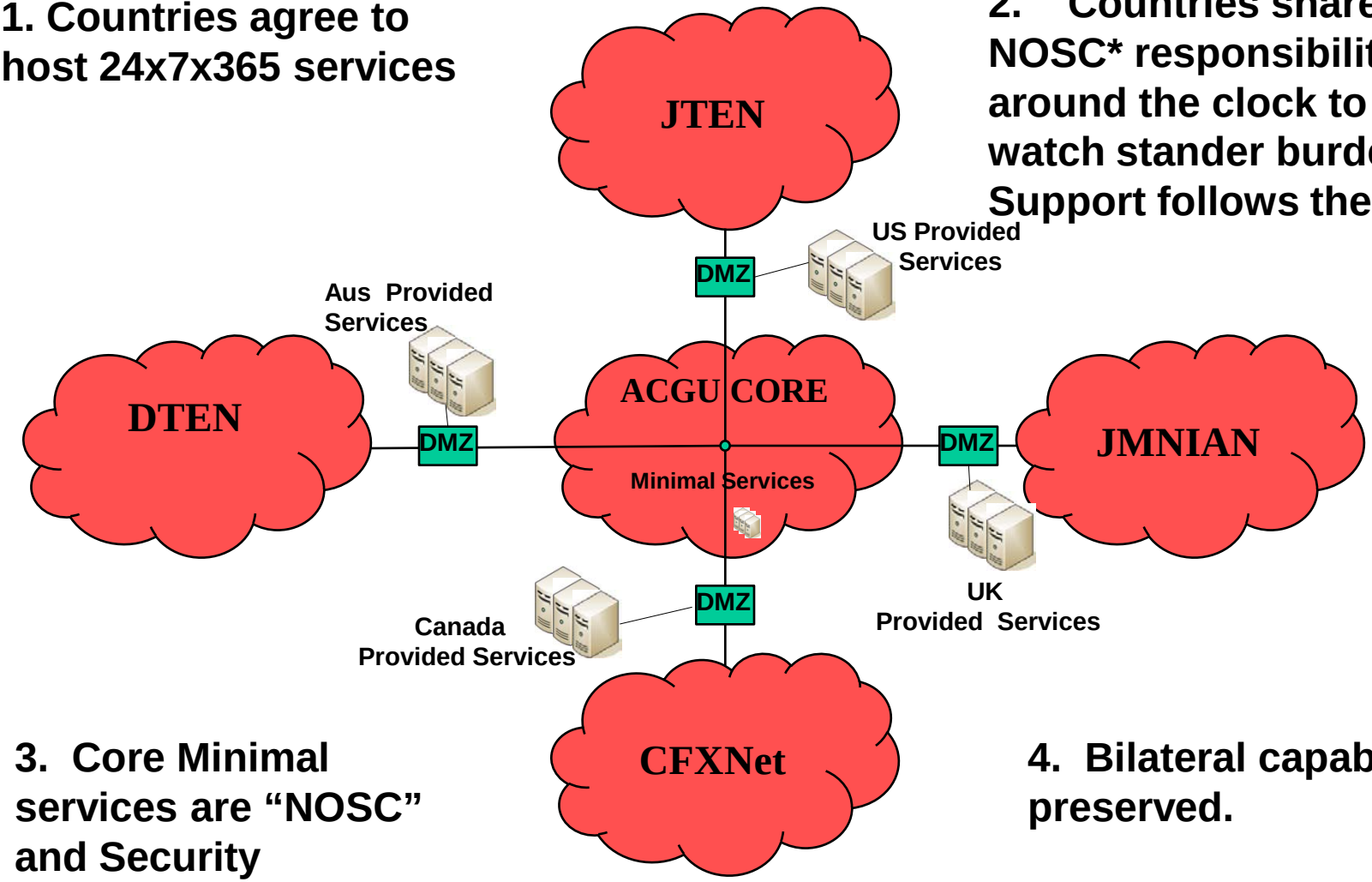
Short Term Way Ahead

- Address 17 August TS-11 AAR
  - improve services available
  - persistent JTEN-DTEN connection results in less flexibility for testing and JLVC collaboration
- Aug-Oct: Extend CX-I to
- 12-15 Sep: CVF 11-4 execution
- 26 Sep: ACGU working group meeting at Worldwide Joint Training and Scheduling Conference (WJTSC)
- 29 Nov: ACGU working group at Interservice/Industry Training, Simulation and Education Conference
- Dec 2011: Canada, Australia CONOPS DSAWG briefs
- March: 2012: Memorandum of Understanding signed at WJTSC

Revised ACGU Model - 2011

1. Countries agree to host 24x7x365 services

2. Countries share NOSC* responsibilities around the clock to share watch stander burden. Support follows the clock.



3. Core Minimal services are "NOSC" and Security monitoring functions

4. Bilateral capability is preserved.

*Network Operations and Security Center

Cross Domain Information Sharing Working Group Update

Training Enterprise Technical Working Group

- This is the driver for a long range Training Enterprise Solution set
- A confederation of technical reps from training and testing organizations
  - NAVAIR, USAF, PEO-STRI, AFRL, L-3 Comm; USAFE; HQ ACC; AFAMS; NWDC; NAWCTSD; SPAWAR; JS DD J7; AF CDSO; MITRE; ASC/WNSEB; MITRE; USAF DMOC; NAVY CDSO; TRMC/JMETC
- Driving several projects as a group
  - Navy - AF - JCW Pilot
  - JLVC - CDIS Synchronization
  - USAFE A10 Rule set

Training Enterprise Working Group

- Navy-AF-JCW Pilot
  - Lead: Navy NWDC
  - Purpose: to prove an Enterprise Training Architecture
  - 2012 should be the delivery year
- JLVC - CDIS Synchronization
  - Lead: JCW
  - Purpose: Provide a certified and accredited CDS for the known training domains in synchronization with scheduled releases of JLVC
  - Simplifies C&A of CDSs for training and test environments
- USAFE A10 Rule set
  - USAFE has presented the WG a requirement
    - Train UK JFACs from WPC
  - Develop and accredit a 4 Eyes A10 rule set on DTNG