Pegasus 101 Brief

Multi-National Information Sharing
Program Management Office
March 2015
Outline

• Pegasus Defined
• Pegasus Requirements
• Pegasus Today
• Product / Service update
• Pegasus Improved Service Management
Pegasus Defined

• Pegasus is an initiative of expanded information sharing among the CCEB nations (AUS, CAN, NZ, UK, US)
• Interconnecting national networks and associated national Secret systems
  – Each nation developing a national gateway (REL DMZ equivalent) to proxy services and protect their national infrastructure
• In the US (and probably other countries) there are multiple DISA service providers
  – MNIS Division IE8: email, US-UK chat
  – Communications Gateway Division ID23/REL DMZ: web proxy service
  – Communications Engineering Division SD32: VoSIP, IP VTC
• Several working groups actively working product delivery, IA/CND, service management
Pegasus Requirement

- Validated CJCSI 6285 Requirement (FY12)
- Three Phases
  - Phase I: Email improvements (2013)
    - Use native email addresses (i.e., first.last.xxx@mail.smil.mil or first.last@defence.gov.au)
    - Any 5-Eyes nation can email any 5-Eyes nation
  - Phase II (2014-2015)
    - Two way web browsing
    - Secure voice – VoSIP is a technical solution
  - Phase III (2015)
    - Chat
    - Selected C2/mission applications
    - IP VTC also discussed
  - Improved service management – Pegasus Service Operations Management (PSOM)
- Related CJCSI 6285 Requirements
  - NORAD Enterprise Network (NEN) migration
  - PACOM Persistent Requirements
Pegasus Today

US-UK
- COTS-GOTS email (2012)
  - GBR Gateway (2014)
  - Apps/services (TBD)

US-AUS
- COTS email (Jun 09)
- Web (Aug 10)
- TS 13 applications
  - CAS, COP, several C2 apps
  - VoSIP (2012)

US-CAN
- COTS email (Nov 10)
- CAN Gateway (Oct 13)
  - 2-Way Web (Op testing)
  - VoIP (2015 In Test)
  - Apps/services (TBD)

US-NZL
- COTS email (2012)
  - Secure voice
  - Web (TBD)
  - Apps/services (TBD)

NZL National Network (SWAN)

AUS National Network (DSN)

UK National Network (DSN)

CAN National Network (CSNI)

UK Gateway

CAN Gateway

NORAD Enterprise Network (NEN)

Tier 0

DRSN w/ IPE

VoSIP

REL

DMZ

Email

US-UK chat

Web Browsing & Secure Voice Interfaces

Approved

1/26/15

United in Service to Our Nation
Ongoing Pegasus Product/Service Activities

- **Pegasus Project Delivery Teams (PPDT)**
  - Joint Meeting (JM) #5, Ft. Meade in SEPT 2014
  - Weekly 1-2 hour telecons
  - JM#6 meeting scheduled for 14-18 Sep 2015 at Ft. Meade
  - MNIS PMO has a lead role in coordination within DISA

- **Several Plans being reviewed or are under development**
  - **CWAN Consolidation**
    - Interconnect REL DMZ (4 Eyes infrastructure) to the Pegasus CWAN network
    - Several CCEB nations requesting testing support for various services
  - **Two-Way Web Browsing**
    - Demonstrated with AUS, CAN in test
    - US Public Key Infrastructure (PKI) in test with AUS and CAN
    - DoD CIO memo signed extending PKI compliance to 30 Jun 2015
  - **Secure Voice**
    - US approach – Unified Capability
    - US will provide Tier 0 service until star configuration available with all nations
    - Use of Session Border Controller recommended for Phase 2 – VoSIP & IP VTC
Key Project Dates

- CWAN Spiral One – Upgrade and Consolidation 31 Jul 2015
- WEB Spiral One – FVEY Browse into USA 30 Aug 2015
- WEB Spiral Two – Browse from USA to FVEY 30 Dec 2015
- Voice Spiral one – Four Eyes Point to Point and Conferencing TBD*

* In test, with a decision review for the CCEB in May 2015
Each nation manages their own domain

Coalition Network Ops Centre (CNOC)
- Intended as a additional role for the US NNOC
- Provides coordination between national NNOCs
- Monitors overall operations of network & ensures CWAN backbone router connectivity
- Facilitates coordination & tracking necessary for NOC to NOC coordination
- Coordinates with DISA element with authority over supporting core DISN transport

National Network Ops Centers (NNOC)
- Manage overall ops of their national network
- Manage their Border Protection System interface to the National Network
- Provides support for national network CWAN operations

CNOC, NNOC & national activities
- Work closely together in managing end-to-end connectivity of CWAN users
- Receive support from other responsible authorities (e.g., IA, CND, COMSEC, POM WG)
- Perform incident management, coordinate & fix problems

Core Data Center (CDC)-Columbus volunteered for the CNOC mission
Questions?
Back Up Slides
PKI Phase 1 Overview

- The goal of Phase 1 is to enable CCEB users to authenticate to SIPR REL with their SC650 PKI token.
- PKI Authentication will replace current username/password authentication to SIPR REL.
- Once authenticated to SIPR REL, CCEB users will use username/password to authenticate to SIPRNet websites (as is done today).
The goal of Phase 2 is to enable PKI authentication from the SIPR REL to the backend DoD web servers.

PKI Authentication will replace current username/password authentication to backend DoD web servers thus enabling end-to-end PKI authentication.
SIPRNet PKI Status

- SIPRNet PKI mandated by DoD CIO
- SIPRNet PKI for CCEB nations granted an extension until June 2015
  - Australia has asked for an extension to complete Talisman Saber 15.
- REL DMZ engineering architecture & processes to allow cross certified PKI use on REL DMZ web proxies
- REL DMZ required information on current & future web proxy network appliance capabilities, with a specific focus on supporting the use of PKI for client authentication and client impersonation
- REL DMZ proof of concept solution stood up
  - Working closely with DISA PKI team
  - REL DMZ obtained/obtaining appropriate CCEB nation PKI certificates for Pilot with AUS and CAN, both are in test March and April 2015.
**CNOC Implementation Status**

- **CNOC is stood up and performing an Operational subset of all specified CNOC functions per the PSOM**
  - Supporting with CDC Columbus NetOps personnel
  - Monthly CNOC Calls with Partner Nations
  - Monitoring Pegasus support tickets
  - Performing Metrics Analysis
  - Providing intended coordination mechanism

- **Pegasus US Integrated Master Schedule (IMS) = Stay abreast of overall Pegasus implementation**
  - Support additional capabilities as fielded
  - Expand capability commensurately
CJCSI 6285 Requirements Process

• MNIS is not a program of record – CJCSI 6285 process provides means for submitting requirements
  
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<th>Training Requirements</th>
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<td>Requirement &amp; Detailed Description</td>
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<td>Justification, Impact &amp; Expected Benefits</td>
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• Not all 6285 requirements come to DISA
  – Determined by Joint Staff J6/CCSD during initial research phase
  – MNIS routinely consulted to determine which DISA organization will be the service provider

• Reviewed, approved & prioritized by C4/Cyber Functional Capabilities Board (FCB) – especially if additional resources are required

• DISA SPI establishing a new “clearing house” process for potential DISA new work
  – 6285 requests will still be a valid means for submitting requirements
DSAWG & Flag Panel Decisions

• May 2012 DSAWG
  ✓ Restored US-AUS VoSIP (secure voice) service

• August/September 2012 DSAWG & Flag Panel Endorsements
  ✓ Consolidate Griffin email into the REL DMZ as part of the US National Gateway
  ✓ Add New Zealand to national addressing for email
  ✓ Connect Canada now, then UK and NZL as each nation is able, and US policy allows
  ✓ Use common approach for Pegasus/email and the REL DMZ for file type sharing
  ✓ Convert REL DMZ to DISN backbone transport (packet over Synchronous Optical Network (SONET))

• Outbound browsing
  ✓ CCEB Partners needed to outline their process for vetting US users
  ✓ Approved for US-Canada; Canada gateway dependencies
  ✓ Implemented US-AUS two-way web browsing -- for Talisman Saber 13 only

• June 2014 DSAWG
  ✓ Endorsed replacing Cross Domain Solution (CDS) based US-UK chat with non-CDS solution (to be registered as a controlled interface); 5-Eyes chat also endorsed