

UNCLAS



Air Force

DoDIIS Infrastructure

Status

19 September 2000 (CDR)

Captain Ryan Durante
AFDI Program Manager

Air Force Research Laboratory/Information Directorate

UNCLAS



UNCLAS



AFDI Overview

- An evolutionary *migration* from the current DoDIIS infrastructure (CSE-SS) to the future DII-COE/COTS Infrastructure
- A Two-Phased implementation leading to a **COTS based** infrastructure while meeting current user requirements for newer advanced technologies
- Target Baseline (follows DII COE by 1 release):

AFDI	Operating System	DII COE	Projected Delivery
1.0	Solaris 7 WinNT 4.0 (SP4)	4.1.0.0	May 2000
1.1	Solaris 7 WinNT 4.0 (SP6a)	4.2.0.0P2	December 2000
2.0	Solaris 7/8 WinNT 4.0 (SP6a), Win2K Professional (Client Only)	4.3.0.0	June 2001

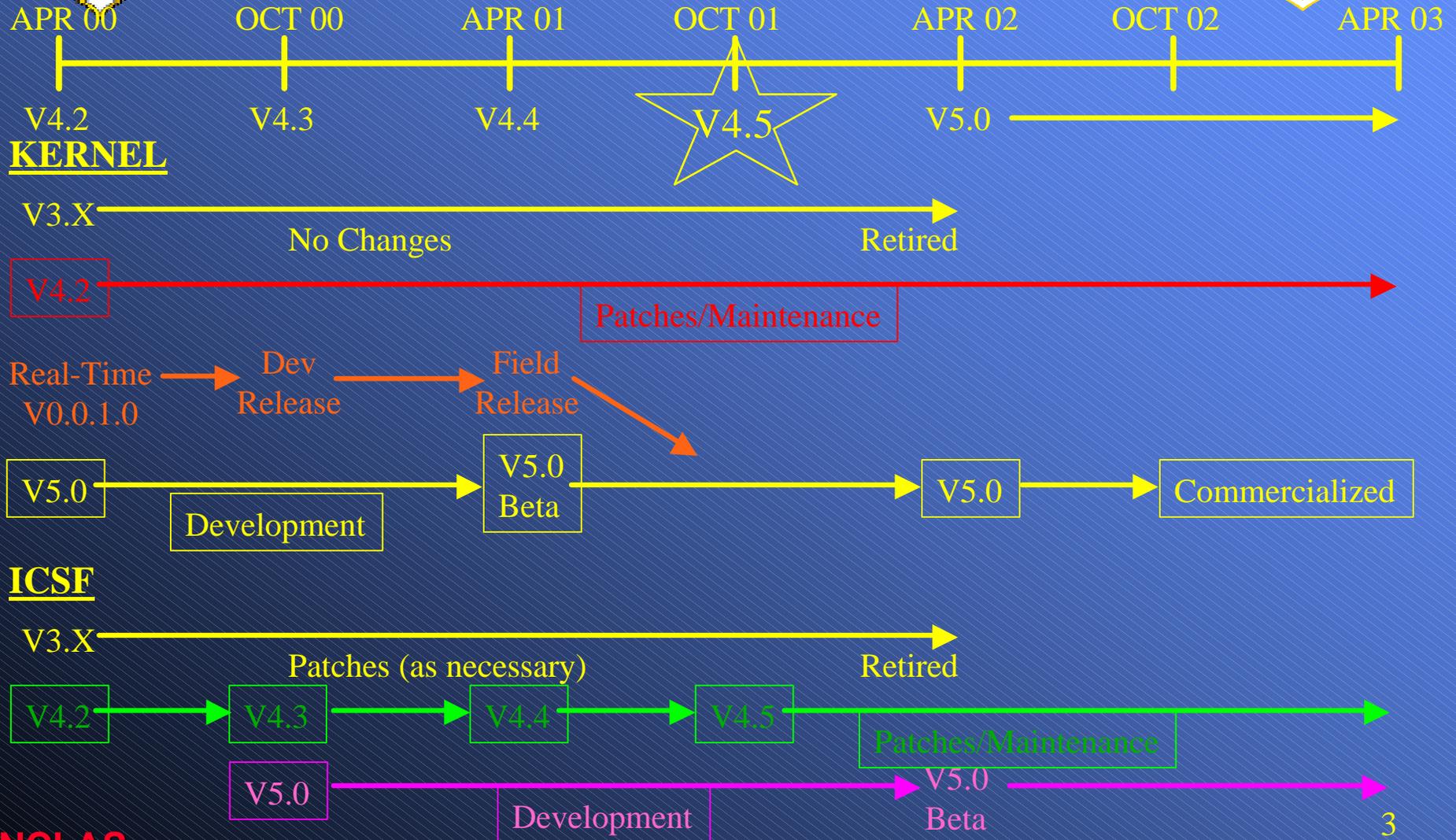
UNCLAS



UNCLAS



COE Delivery Plan (As of June 2000)



UNCLAS



UNCLAS



COE Version 4.2 -- April 2000

- I&RTS
 - Version 4.0 (October 1999)
- Kernel
 - Version 4.2 = Version 4.1 with rolled-up patches
 - HP 10.20, Solaris 7, Windows NT with Service Packs + KPC
 - Solaris 8, HP 11, and Windows 2000 not available in time
 - Beta Real-time Kernel delivered April 2000
 - Java Community Process for Installer in progress

UNCLAS



UNCLAS



COE Version 4.3 -- October 2000

- I&RTS
 - Version 4.0 (October 1999)
- Kernel
 - Patches for Version 4.2 (as necessary)
 - HP
 - HP 10.20 and HP 11 supported
 - Sun Solaris
 - Solaris 7 and Solaris 8 supported
 - Windows
 - NT 4 w/Service Packs supported
 - Windows 2000 Professional (client) supported
 - Kernel Platform Compliance (KPC) compliant O/S's
 - Developer's Release Real-time Kernel (separate from 4.x Kernel)
 - Java Community Process for Installer in progress

UNCLAS



UNCLAS



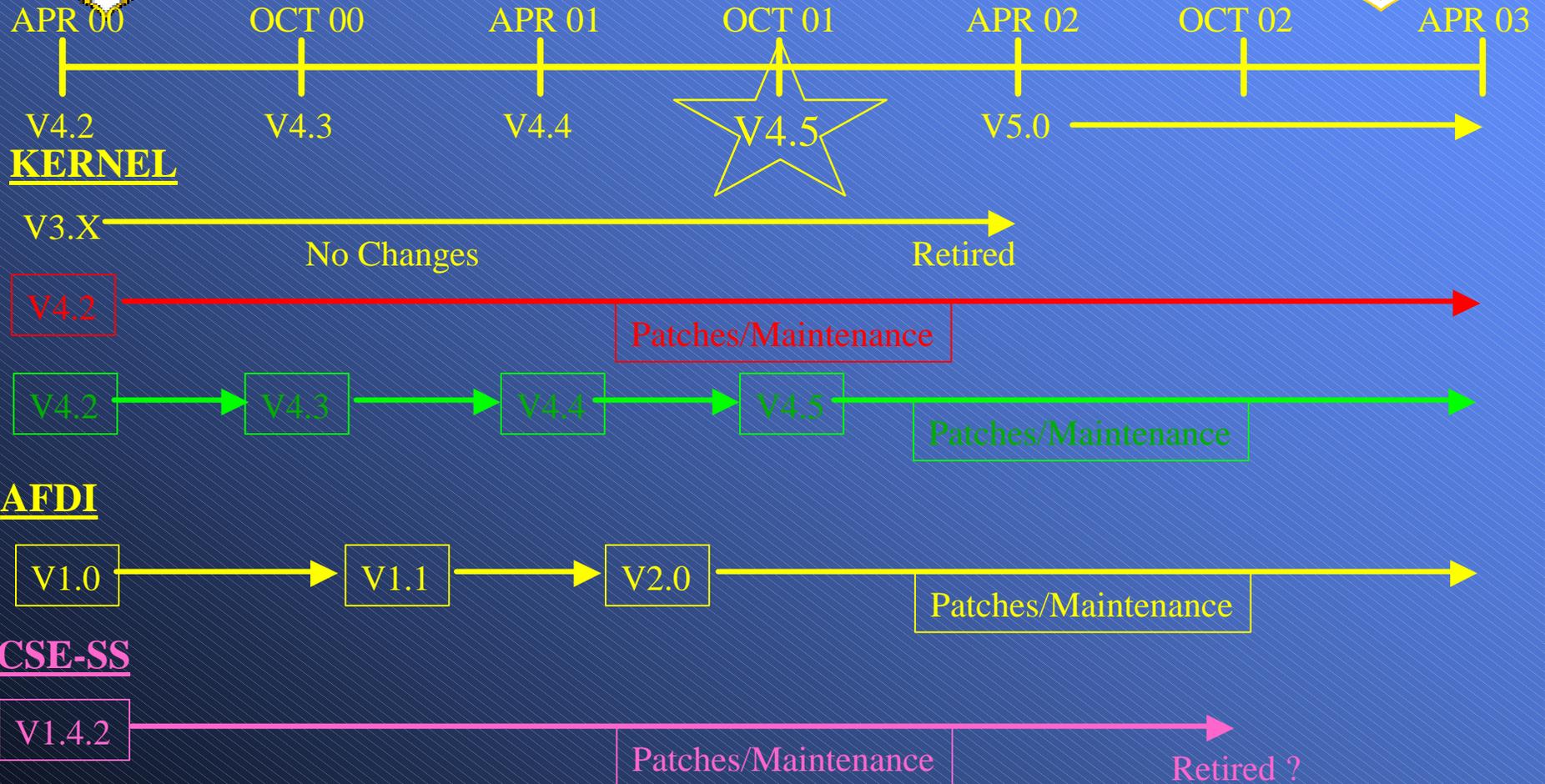
COE Version 4.4 -- April 2001

- I&RTS
 - Version 4.0 (October 1999)
 - Version 5.0 Draft available April 2001
 - Installer guidelines handled through Java Community Process
 - Kernel services addressed through commercialization
- Kernel
 - Patches for Version 4.2 (as necessary)
 - HP 11, Solaris 7 and 8, NT 4, Windows 2000 Professional + Servers (TBD), + KPC
 - Retire HP 10.20?
 - Need to support any new Operating System versions?
 - “Field-able” Real-time Kernel (separate from 4.x Kernel)

UNCLAS



AFDI/COE Delivery Plan (As of Sep 2000)





UNCLAS



AFDI Phase I Review

- *Flexible Migration Tool*
 - Provides segmentation of current DoDIIS infrastructure services (CSE-SS) with upgrades to newer technologies
 - Provides backward compatibility with the current infrastructure and allow interoperability and compatibility with current (un-segmented) collateral segments
 - Least intrusive to site resources
 - Most cost effective way to achieve **DII COE Level 5 Compliance**
 - Provides the **security** necessary to meet DoDIIS requirements
 - **AFDI is SCI Certified (PL2+, HA, HI)**
 - Integration with emerging technologies to satisfy current unsatisfied user community requirements
 - Ex: Tighter UNIX/NT Integration

UNCLAS



UNCLAS



Phase I Progress

- Contract award to Sterling Software (CA) 15 July 99
- Successful Pre-Alpha Demo on 13-14 Oct 99
 - Both Solaris 7 and WinNT 4.0 platforms
 - Integrated Infrastructure Segment
 - Data Segment Creation with Transition Utilities
 - Installation Flow

UNCLAS



UNCLAS



Phase I Progress

- 15 - 19 November 99 integration of AFDI with Theatre Battle Management Core Systems
 - Existing profiles can still be utilized
 - Segmentation done for DII COE 3.x may not need further massaging (some may)
 - Recommendation to ESC from TBMCS developer...
 - AFDI should be utilized in JEFX 00

UNCLAS



UNCLAS



Phase I Progress

- Successful 1.0 IPAT on 6-10 Dec 99
- Successful 1.0 Beta I on 10-14 Jan 00

UNCLAS



UNCLAS



Phase I Progress

- JITF Testing on 10-21 January 2000
 - Three Category 1 Findings
 - Installation of the COE onto a system utilizing an external hard drive renders the system unbootable without manual intervention.
 - CTC utility should execute on NIS systems.
 - Installation of COE does not allow the NT Workstation to be rebooted by normal methods.

UNCLAS



UNCLAS



Phase I Progress

- Security Assessment in JITF from 25-28 January 2000
 - All services/agencies were invited
 - The following participated in the evaluation:
 - NSA
 - DIA/SYS-4
 - USAF, 497th IG/INDIC
 - USN, ONI
 - Category I Findings: 5
 - Category II Findings: 8
 - All have since been CLOSED

UNCLAS



UNCLAS



Phase I Progress

- Successful Regression Testing in JITF (March 2000)
 - All Category 1 Problem Reports were closed
 - Over 80 other Software Findings and Document Findings were closed
 - A combined report has been published under one cover detailing both tests
 - COE findings have been broken out into separate white papers (available in the VTF on Intelink)

UNCLAS



UNCLAS



Phase I Progress

- Beta II (April 2000) at USSPACECOM
 - Two weeks total
 - Week 1: Security Accreditation – SUCCESSFUL
 - AFDI/DII COE is now SCI certified
 - Week 2: IMA Integration
 - Successfully integrated 5 IMA's
- AFDI 1.0 Distribution (May 2000)
 - Evaluation Copy
 - Available NOW
 - Free to all

UNCLAS



UNCLAS



Phase I Schedule Summary

15 July 99	Contract Awarded
13-14 Oct 99	Pre-Alpha Demo
6-10 Dec 99	IPAT
17-24 Jan 99	JITF & Beta I
25-28 Jan 00	Security Certification
13-17 Mar 00	JITF Regression
3-13 Apr 00	Beta II (USSPACECOM)
8 May 00	Begin v1.0 Distribution

UNCLAS



UNCLAS



Phase II (AFDI 1.1 & 2.0)

- Migrate away from AFDI GOTS infrastructure services as COTS and funding become available
 - Gradual migration spreads funding for COTS across fiscal years -- as COTS become available GOTS services are removed
 - Continue implementing new infrastructure technologies including Public Key Infrastructure (PKI), Web interfaces, LDAP
 - Automate the installation and configuration of the OS, DII COE Kernel, & AFDI Segment

UNCLAS



UNCLAS



Phase II

- Automation of the segmentation process
 - Segmentation tool (VISE)
 - Places segmentation in the hands of the integrator vs the IMA developer
 - Segment creation and maintenance
 - Configuration Definition Modeling
 - Allows sites to segment site-unique applications without the cost of a development staff

UNCLAS



UNCLAS



Phase II

DoDIIS Configuration Definition - Visual Integrated Segmentation Environment

File Edit View Help

DoDIIS Configuration Definition

- DoDIIS Base Client
 - Axent Client
 - DoDIIS Account Group
 - DoDIIS Security Bundle**
 - Crack
 - DoDIIS Sessions
 - McAfee AntiVirus
 - Password Tool
 - Print Banners
 - Print Status
 - Print Utility
 - Printer Maintenance
 - Remote Distributon
 - TCP Wrappers
 - HPOV Network Node Mgr age
 - Remedy Action Request Clie
 - Tivoli Client
- COTS
- DBServers
- ELINT Server
- GOTS
- Imagery Server
- Mission Applications

Name	Size	Type	Modified
Crack	1024KB	Software Segment	01/08/1999 11:2...
DoDIIS Sessions	1024KB	Software Segment	01/08/1999 11:5...
McAfee AntiVirus	1024KB	Software Segment	01/08/1999 11:5...
Password Tool	1024KB	Software Segment	01/08/1999 12:0...
Print Banners	1024KB	Software Segment	01/08/1999 12:0...
Print Status	1024KB	Software Segment	01/08/1999 02:1...
Print Utility	1024KB	Software Segment	01/08/1999 11:5...
Printer Maintenance	1024KB	Software Segment	01/08/1999 12:0...
Remote Distributon	1024KB	Software Segment	01/08/1999 12:0...
TCP Wrappers	1024KB	Software Segment	01/08/1999 11:2...

Disk Usage 10240 K Memory Usage 16384 K Classification UNCLASSIFIED

UNCLAS

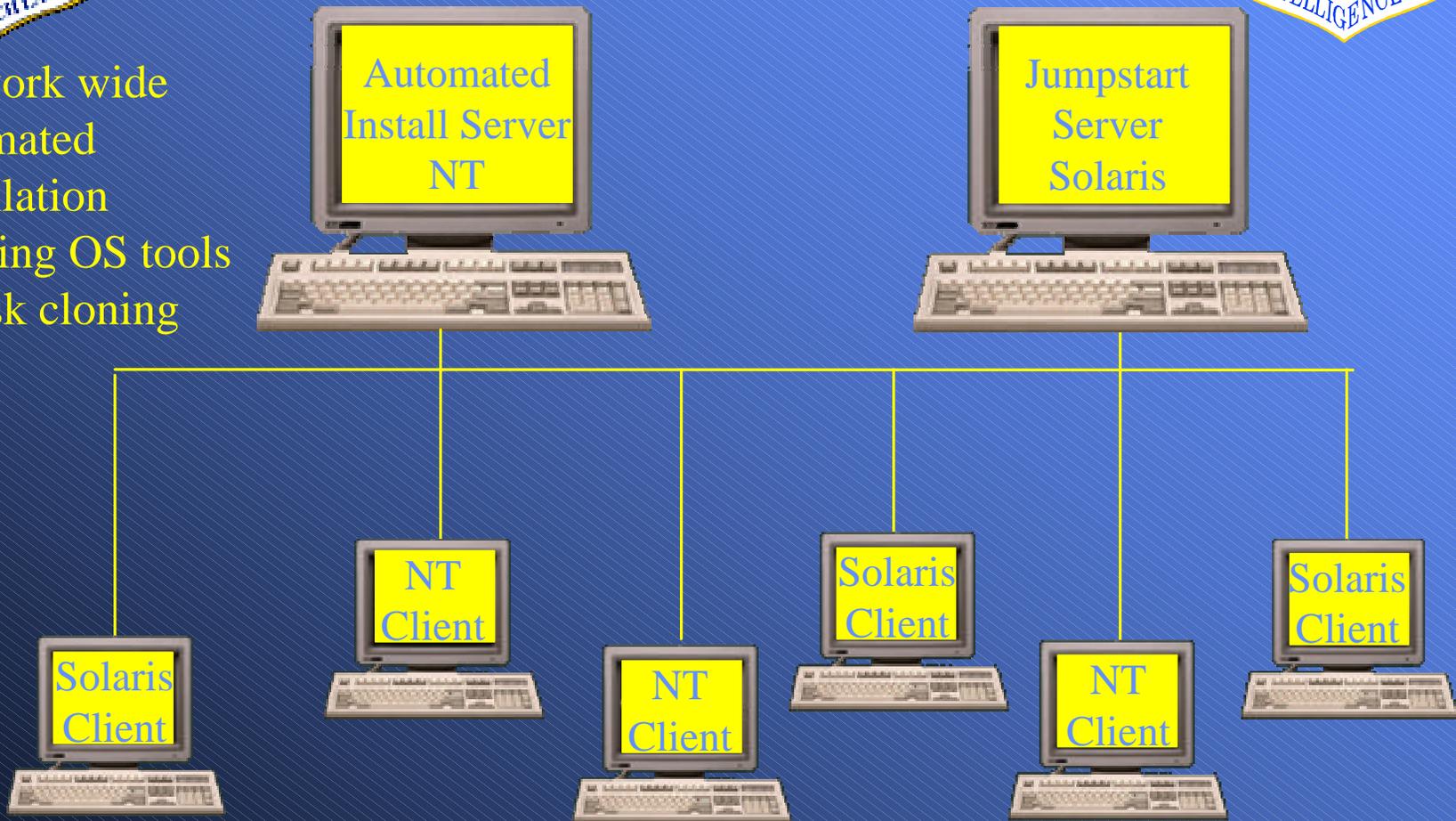


UNCLAS



Phase II

- Network wide automated installation utilizing OS tools & disk cloning



UNCLAS

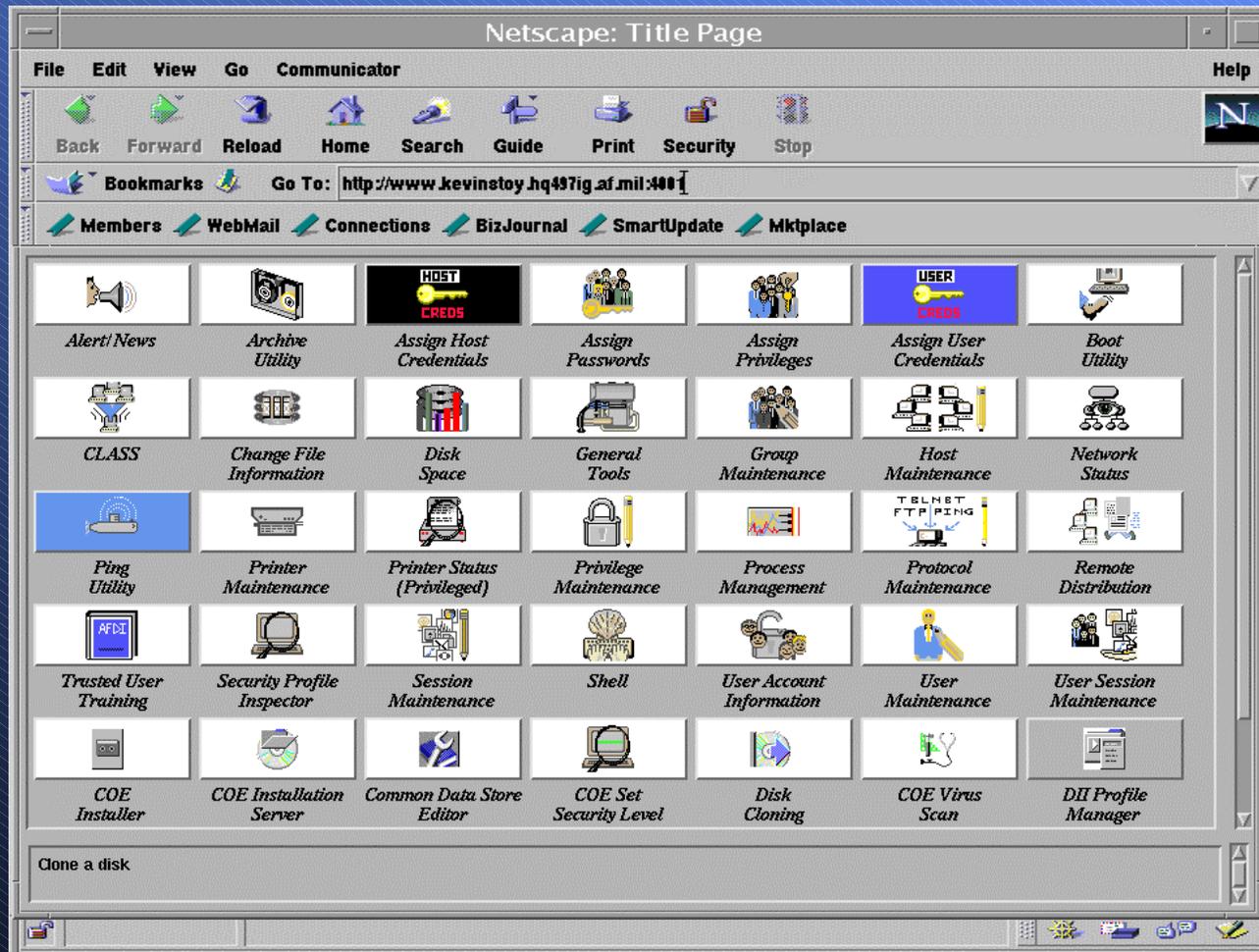


UNCLAS



Phase II

...and a Web interface for infrastructure services



UNCLAS

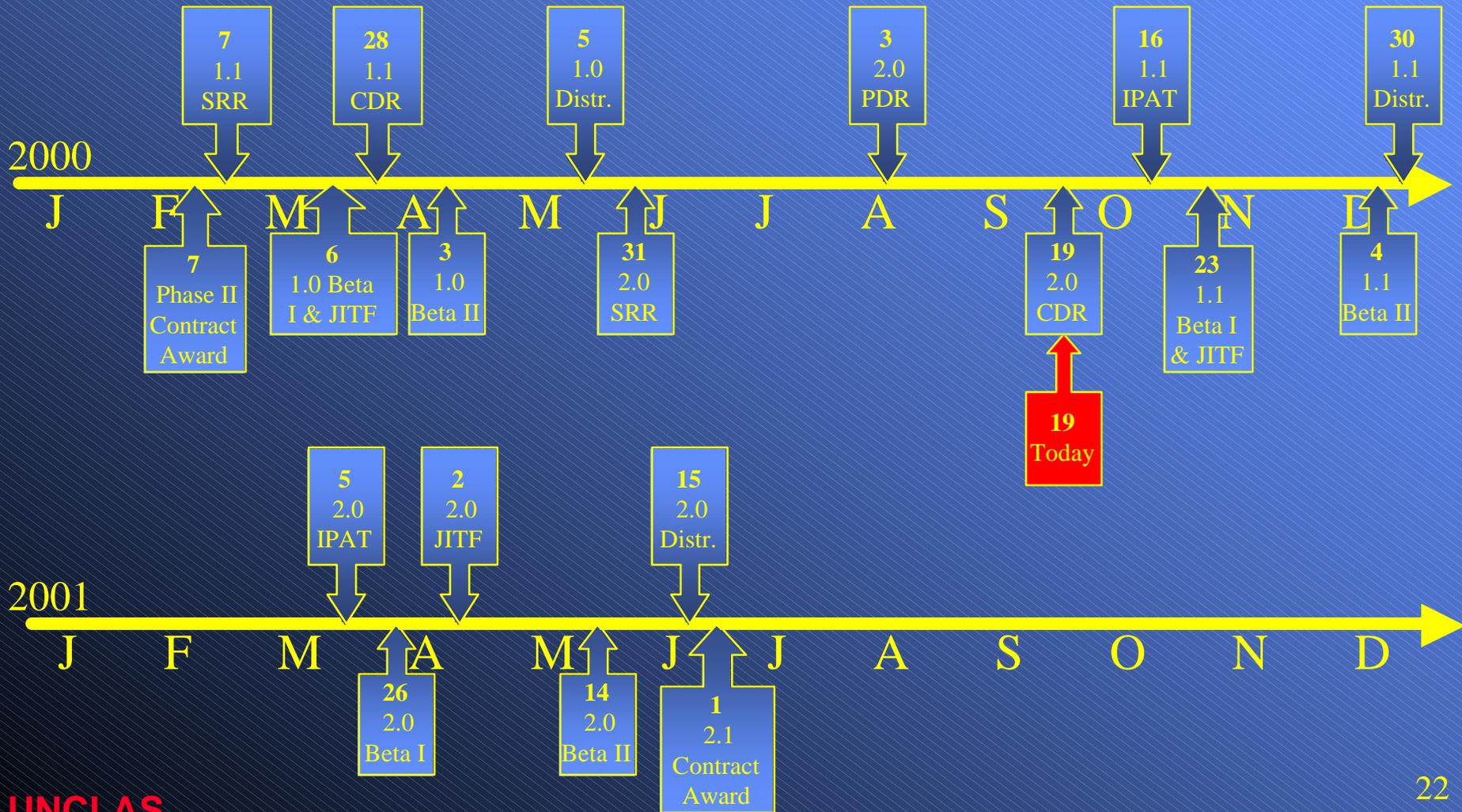


UNCLAS



Phase II Progress

Progress & Milestones



UNCLAS



UNCLAS



DoDIIS Management Board (DMB) Mandate

- 2 Aug 2000 DMB Minutes Section 4.1 “DoDIIS Enterprise Transition Strategy”
 - www.dia.ic.gov/proj/dodiis/dmb/dmb.html
- “DMB Principals’ discussion:** The DMB Principals focused on three issues.
- The first was the need for a conceptual agreement on the future direction and architecture for the DoDIIS Community
 - The second as the need to reaffirm AFDI as the near-term transition for CSE-SS sites
 - The third was the need to bring the disparate planning and implementation efforts into focus, put the information, transition strategy and schedule into a DoDIIS Transition Plan to identify and work issues as a Community.
- ...
- There was a great deal of discussion concerning the future direction of the DoDIIS Community and the need for an affirmation of AFDI 1.x as the near-term transition for CSE-SS sites. As noted above, the DMB principals endorsed AFDI 1.x as the near-term solution.

UNCLAS



UNCLAS



Phase II Schedule Summary

AFDI 1.1	
7 March 00	Contract Awarded
16-20 Oct 00	IPAT
23-27 Oct 00	Beta I
30 Oct –10 Nov 00	JITF
13-17 Nov 00	Security Certification
11-15 Dec 00	Beta II (TRANSCOM)
Jan 00	Begin Distribution
AFDI 2.0	
31 May - 1 Jun 00	SRR
4 Aug 00	PDR
19 - 21 Sep 00	CDR
5-9 Mar 01	IPAT
26-30 Mar 01	Beta I
2-13 Apr 01	JITF
16-20 Apr 01	Security Certification
14-18 May 01	Beta II
15 June 01	Begin Distribution

UNCLAS



UNCLAS



Summary

- DoDIIS Test Process in Progress
- Successful Pre-Alpha Demo in October 99
- Successful IPAT
- Successful Beta I
- Successful JITF
- Successful AFDI v1.0 Beta II
- AFDI V1.0 available NOW!
- AFDI V1.1 available January 2000
- AFDI V2.0 available June 2001

UNCLAS



UNCLAS



Summary

- AFDI is on-Schedule
- AFDI will provide transition to DII COE
- AFDI satisfies and enhances security *and* operational requirements
- AFDI allows mixed environment without doubling of resources
- AFDI provides most financially and technically sound solution to DII COE migration for DoDIIS sites

UNCLAS



UNCLAS



Points of Contact

Mr. Steve Fager
497 IG/INDI
BLDG 1304, Suite 240
240 Luke Avenue
Bolling AFB, DC 20332-7030
COMM (202)404-8736
DSN 754-8736
fagersd@emh-497ig.bolling.af.mil

Capt Ryan Durante
AFRL/IFEB
32 Brooks Road
Rome, NY 13441
COMM (315)330-7657
DSN 587-7658
duranter@rl.af.mil

AFDI Home Page

<http://extranet.if.af.mil/infrastructure/>

<http://web1.rome.ic.gov/infrastructure/>

UNCLAS