Security on the Desktop

Fighting the Enemy Within

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Adelphi Lab Center (ARL-ALC)

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This briefing entitled “Security on the Desktop: Fighting the Enemy Within” was presented by LTC Paul Walczak, of the Army Research Laboratory to GovTechNet 99 in June 1999. It examines the scope of the challenges of securing Army information and information networks and provides some examination of some of the INFOSEC research areas that will tackle this problem.

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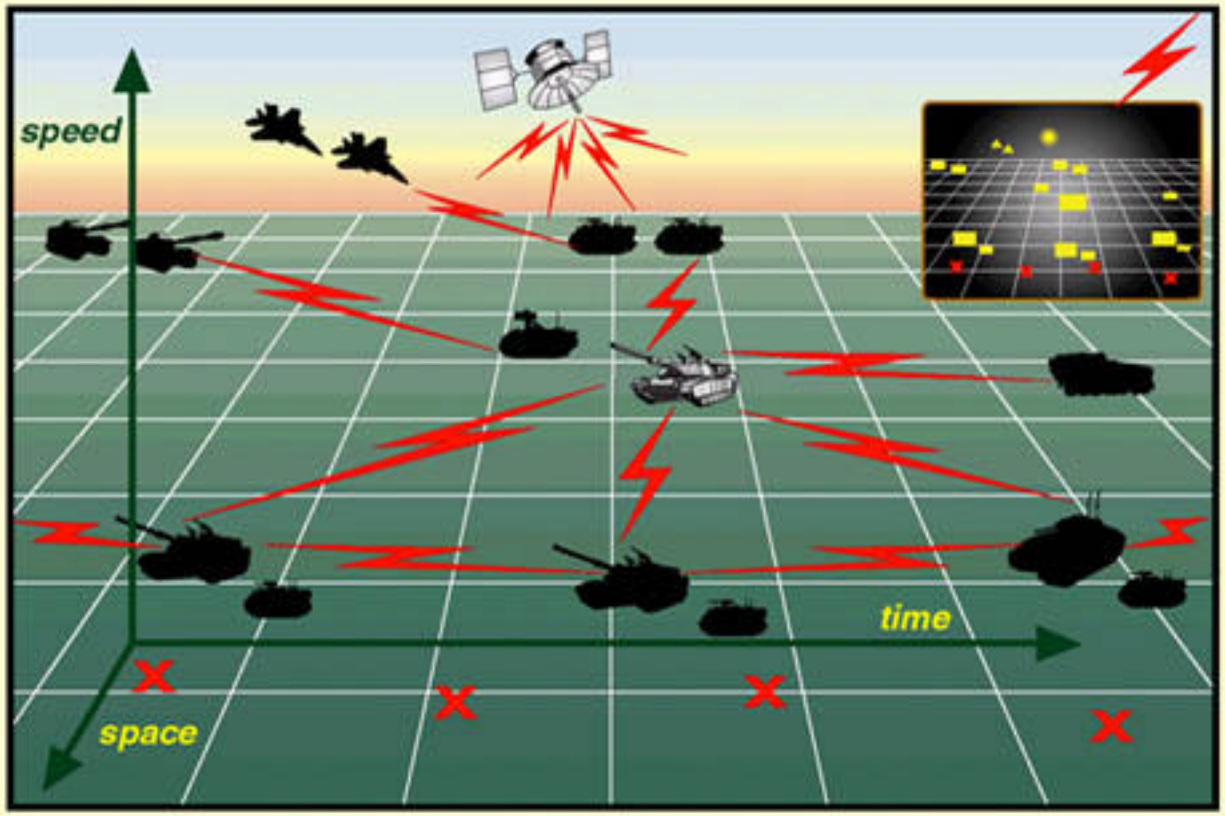
Army XXI - *Into the Future*

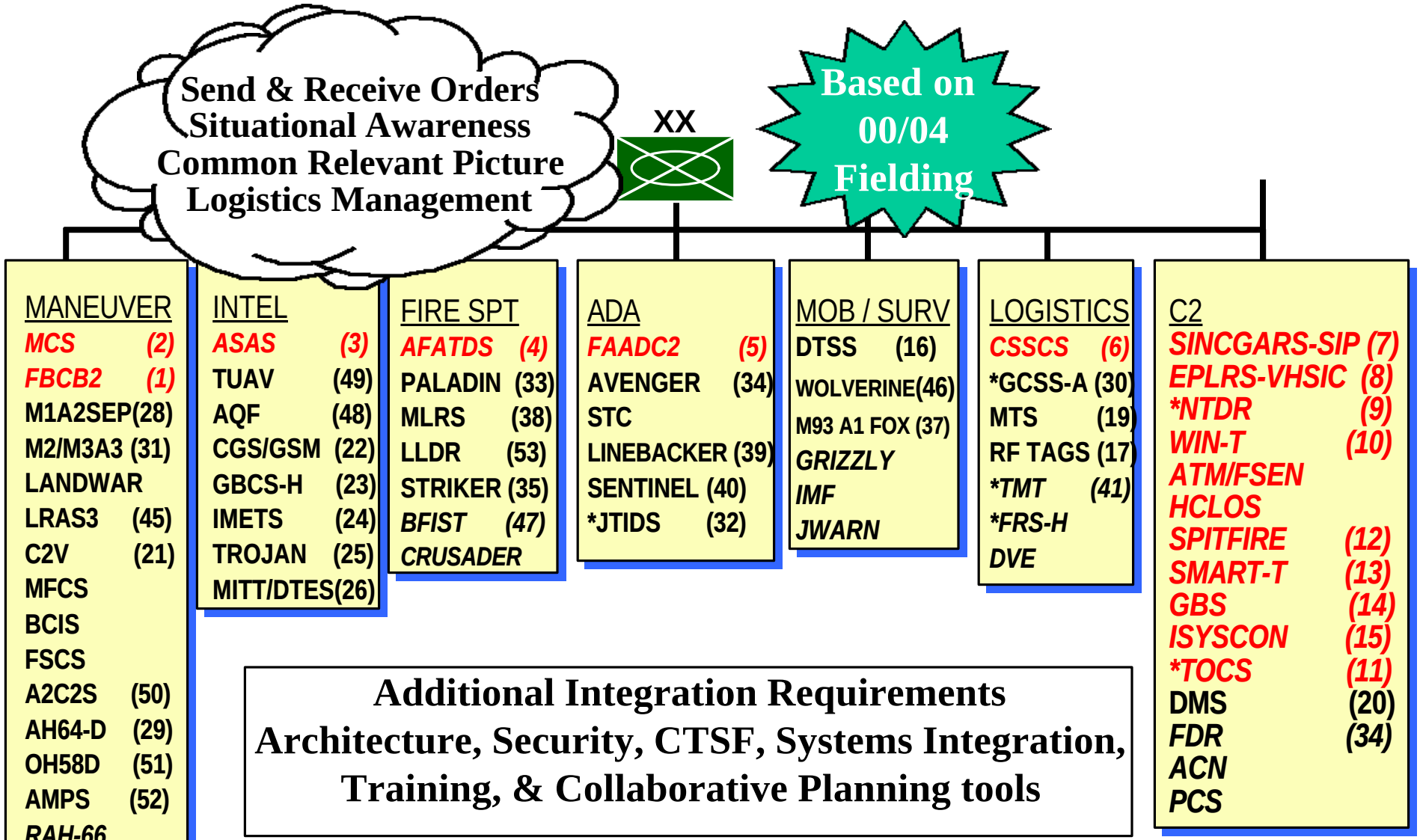
The Incorporation of Digital Technology Across All Of Our Battlefield Systems Will Give Commanders And Soldiers Unprecedented Capability to Gather And Share Tactical Information



PROGRAM EXECUTIVE OFFICE COMMAND, CONTROL, AND COMMUNICATIONS SYSTEMS 8/28/97 0005

Slide Courtesy of US Army PEOC3S

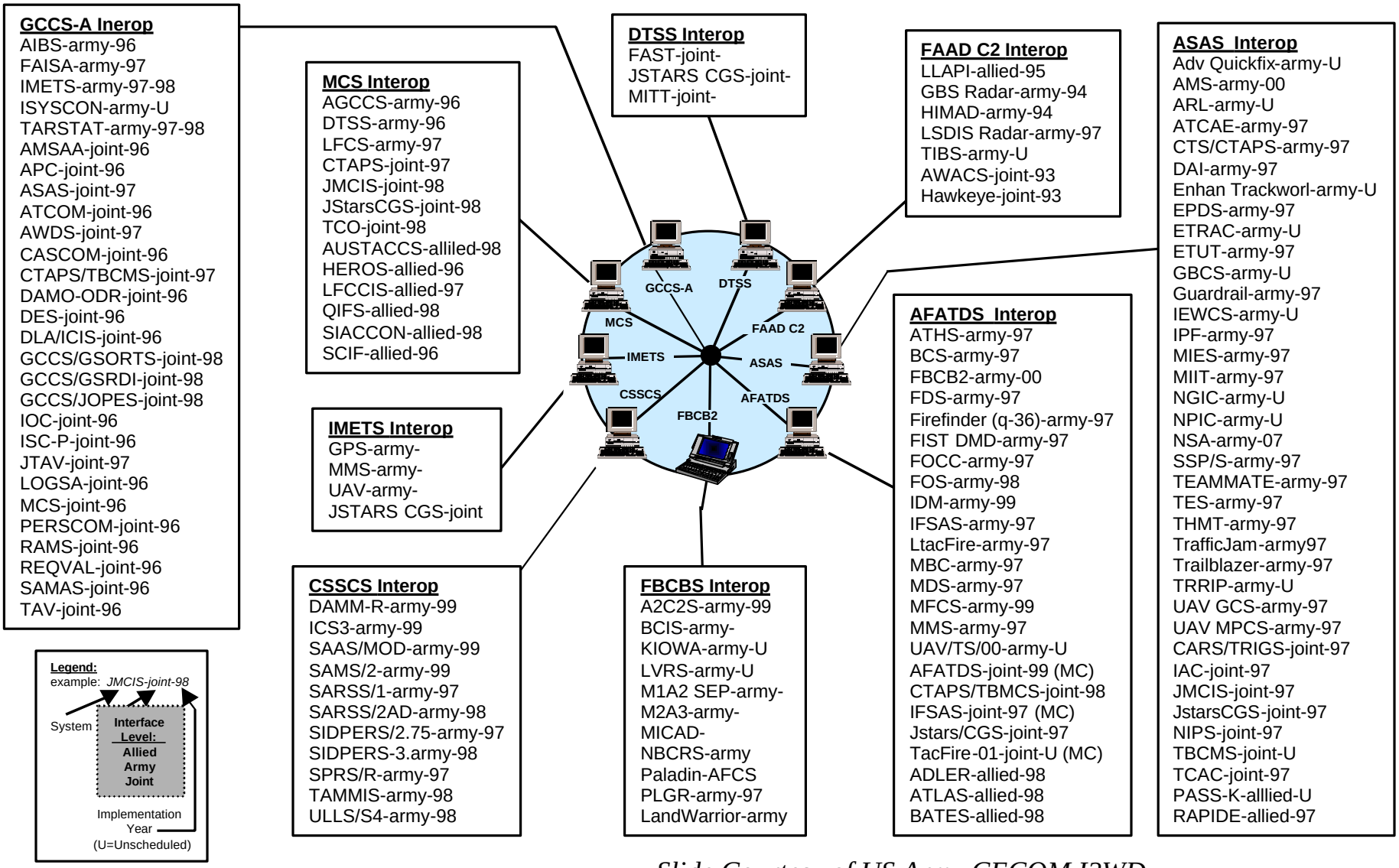
U.S. Army Near Term Requirements
FDD Division Chart



Additional Integration Requirements
Architecture, Security, CTSF, Systems Integration, Training, & Collaborative Planning tools

Slide Courtesy of US Army CECOM I2WD

U.S. Army Objective Requirements
ABCS Systems/Networks Chart



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Partial View to Problem's Scale

Army Information Systems 14,544

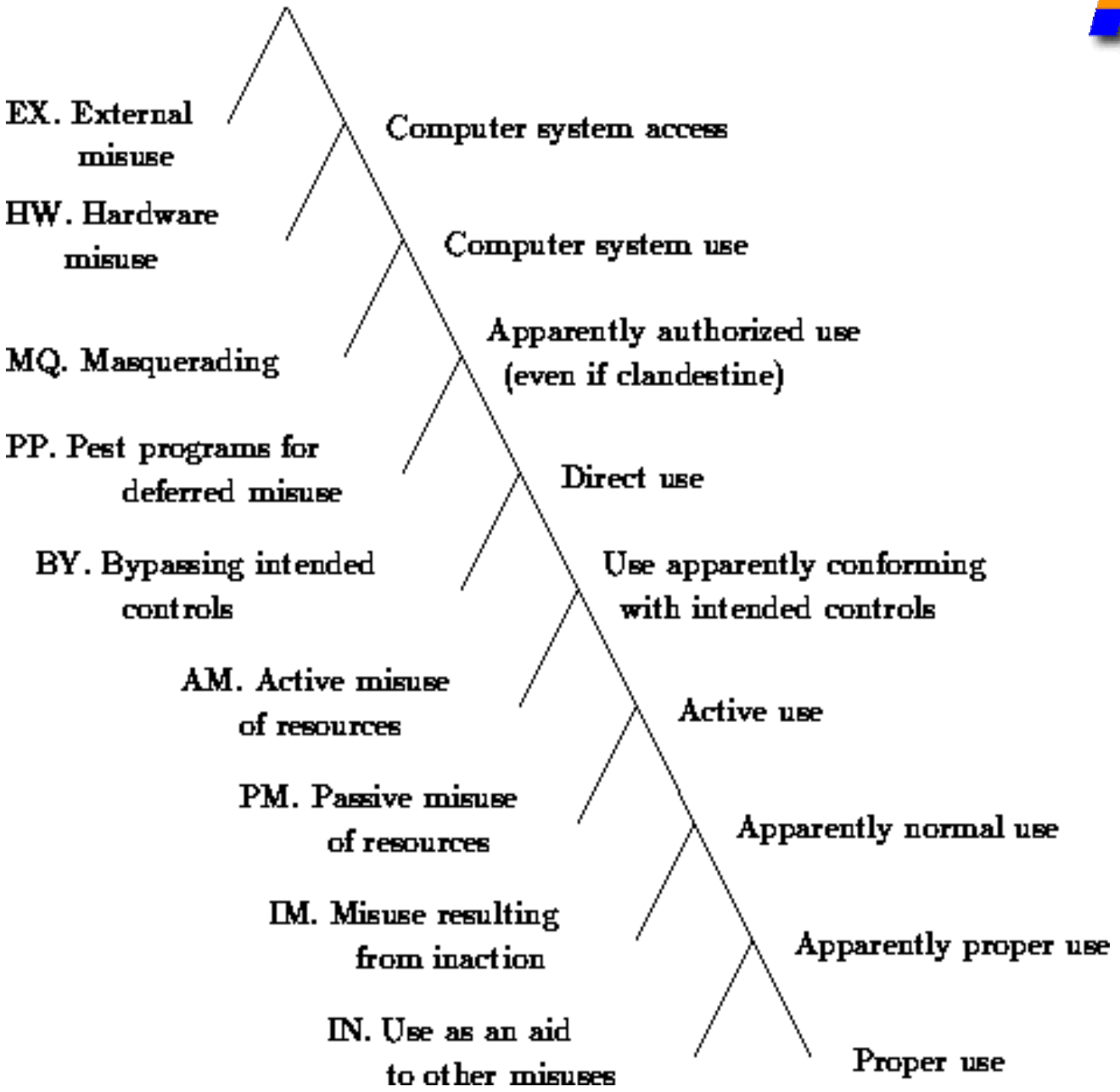
- Major Systems 1,219
  - Mission Critical 638
  - Other Major 581
- Other Systems (996 Web sites) 13,325

Information Technology Controlled Devices 444,196

- PCs/Servers 365,077
- Facilities & Other 42,048
- Communications Hardware/Software 7,071

Army IS Security Program (total funding) $ 87 million

Classes of Computer Misuse Techniques



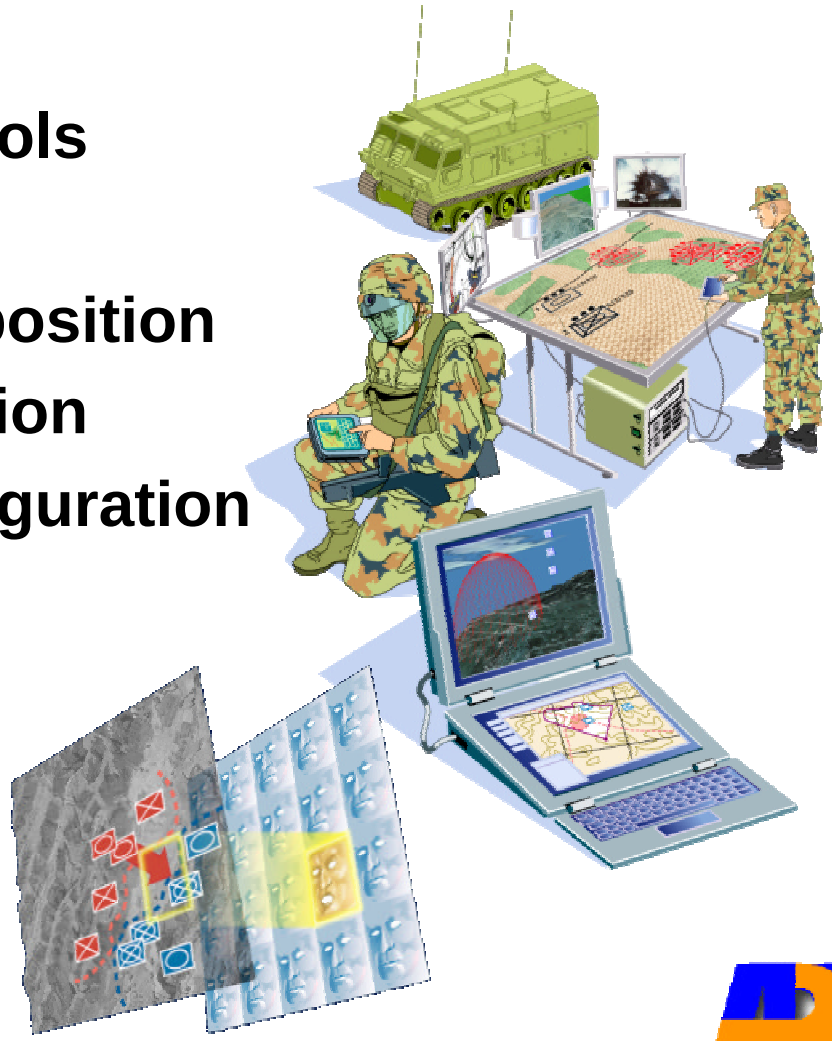
Securing Systems at the Desktop

- ✦ Insider Misuse
- ✦ Development Practice
- ✦ Threat is Learning
- ✦ Warrior's "desktop"
- ✦ Assurance >> Securing Systems
- ✦ Process and Culture

- ❑ Holistic interpretation
- ❑ Acquisition Strategy
- ❑ Education, Training
- ❑ Spectrum of Information
- ❑ Overarching concept for INFOSURV
- ❑ No silver bullets

Directions for INFOSURV R&D

1. Robust networking protocols
2. Requirements metrics
3. Predictable systems composition
4. Data analysis and correlation
5. Dynamic system (re) configuration
6. Dynamic adaptability
7. Architectures
8. Mobile code
9. Components



INFOSEC Research Areas

1 -Security Engineering Methodologies

2 -Detecting Intrusion and Misuse

3 -Mobile, Foreign Code

4 -Controlled Sharing

5 -Denial of Service

6 -Application Security

7 -Communications Security

8 -Security in Mobile Environments

9 -Security Management Infrastructure