Cyber Security Practitioner (CSP) Professionalization Program:

An Approach for Professional Development -- Based on the Program Established at the Department of Veterans Affairs

Bruce Brody
ISPAB Meeting, September 2004

People – Key Building Block for Department-wide Security Program

1. **In 2003, VA became the only large Department to centralize its cyber and information security functions at the Department level**
2. **OCIS currently has 118 FTE, ~$100+ million budget**
3. **OCIS is working to professionalize the 700+* VA cyber security practitioners in FY 2003**
4. **By 2004, a new Professionalization Directive and full certification of the information security work force will be completed, and VA will also boast one of the largest CISSP populations in Government**

Goal: ISO (Information Security Officer) professionalization and certification will be the most comprehensive program of its kind in the Government

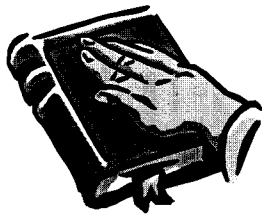
* This number includes full-time and part-time ISOs and alternate ISOs

Professionalization Overview

Finally, a promising practice for security personnel!

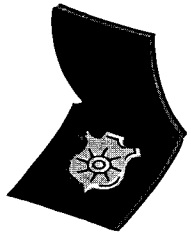
Training → **VA Common Body of Knowledge; classroom training, Web-based module**

Testing → **180 questions randomized off a list of 600 validated questions**



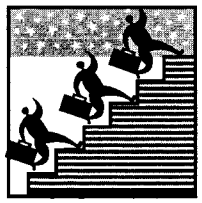
Certification → **Certifies that the individual is qualified to act as a VA Information Security Officer**

Ethics Statement → **An oath of acceptable behavior to which an ISO must adhere**



Background Investigation → **Confirmation that the individual can hold at least a Secret security clearance**

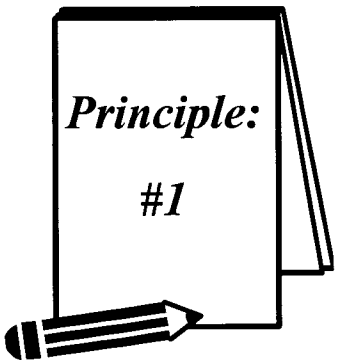
Credentialing → **Visible identification of an individual's authority to act on behalf of OCIS**



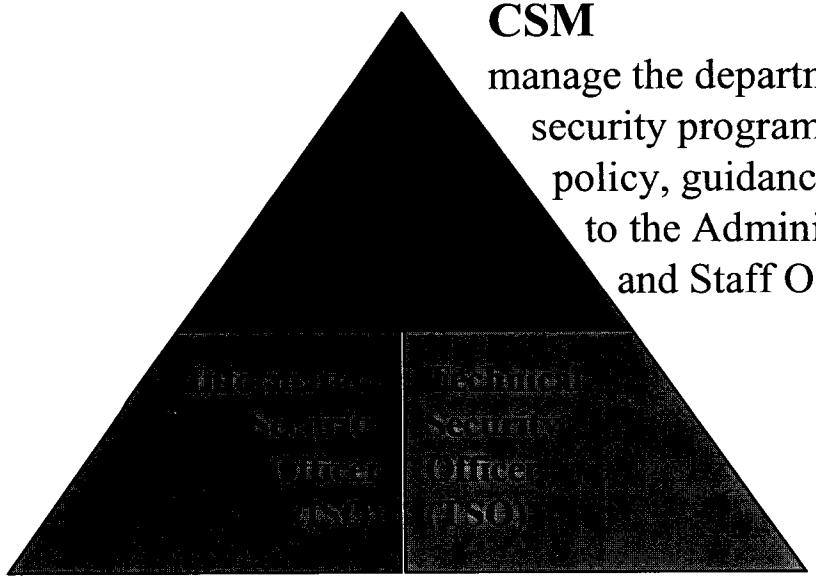
Career Path/Incentives → **2210 series PDs; career progression and mobility; monetary and non-monetary awards**

Re-Certification → **Post-certification training; re-testing; 3-year re-certification requirement**

Principle 1



- **Recognize that security is not a one-size fits all position**
  - Position descriptions are needed to clearly identify roles and responsibilities of CSOs

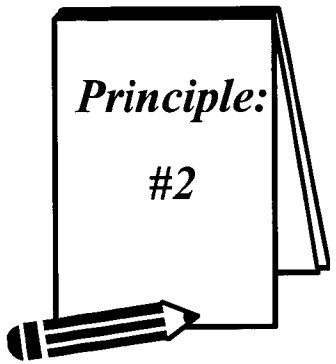


CSM
manage the departmental cyber security program and provide policy, guidance, and oversight to the Administrations and Staff Offices

ISO
ensure operational compliance and effectiveness of security program elements that are not hardware or software related

TSO
ensure operational compliance and effectiveness of security program elements that are system (e.g., hardware/ software) related

Principle 2

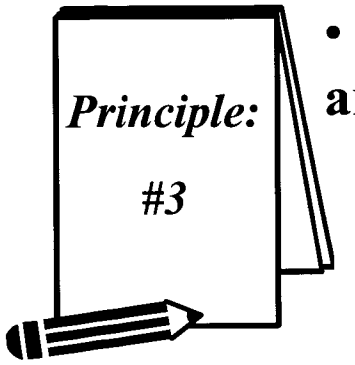


- **Training is a critical countermeasure and an essential element for all levels of the VA workforce:**
  - CSPs must have a Department-wide focus and be able to bridge the differences between the operating administrations
  - Training must support development of general knowledge and skill, as well as industry certifications
  - VA's Core Body of Knowledge (CBK) was developed from VA policy, NIST standards and guidelines, and industry best practices
    - Key domains of knowledge include: Security Fundamentals, Network Security, Security Controls, CSP Tasks, and Compliance
    - Major tasks: Risk Assessment, Security Plans, Certifications and Accreditation, Contingency Plans, Configuration Management, and Incident Response

Training…

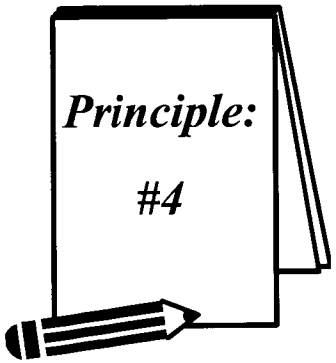
- Remediates FISMA deficiencies and removes material weakness
- Develops work force competencies
- Communicates security requirements
- Enables a One-VA support structure
- Provides a standardized approach for improving performance
- Attains FITSAF levels 3 and above

Principle 3



- **CSPs need a career path and a means to achieve vertical and horizontal growth:**

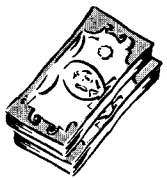
Principle 4



- **Incentive programs are needed to reward, attract, and retain qualified CSPs**
  - Pool of potential entry-level applicants is shrinking
  - The workforce is aging, and retirement eligible population is growing
  - Government jobs are viewed as relatively unattractive
  - Employee mobility is on the rise
  - Free agency approach to work is gaining popularity

Bottom Line: Competition for talent is keen

VA Incentive Options



Compensation- advance payment for new hires, recruitment and relocation bonuses, retention allowances, superior qualification appointments

Training- repay Federally-insured student loans (employee must sign 3-year service agreement); Homeland Security Act contained a provision that makes it easier for Agencies to cover the cost of employees' higher education

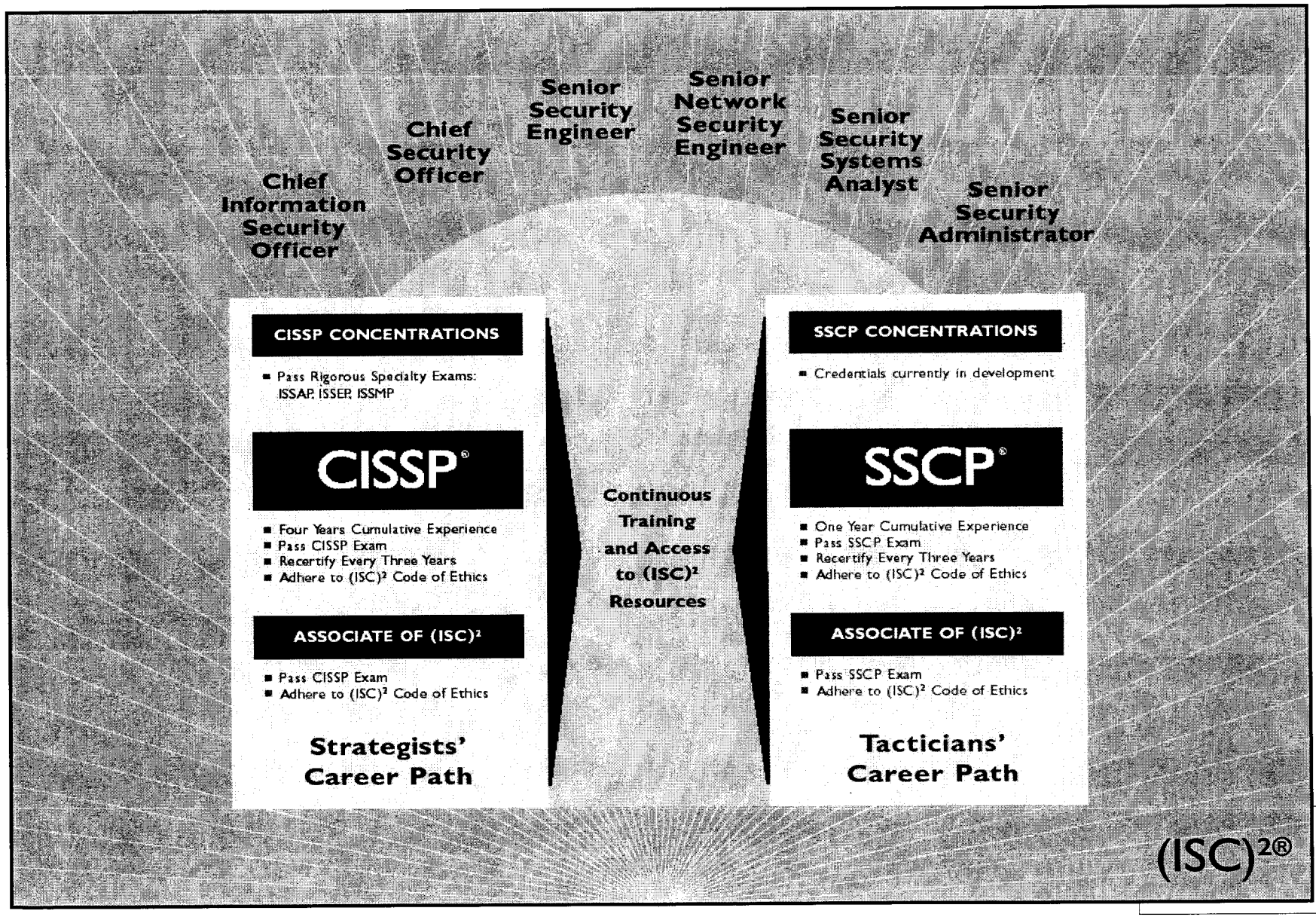
Career development- opportunities for career advancement and organizational design

Flexible work arrangements- telecommuting, job sharing, transit subsidy, time off for volunteer activities, Flexible Work Schedules (FWS), and Compressed Work Schedules (CWS)

Shifting Gears Slightly, What Are the Characteristics of a Professional Certification?

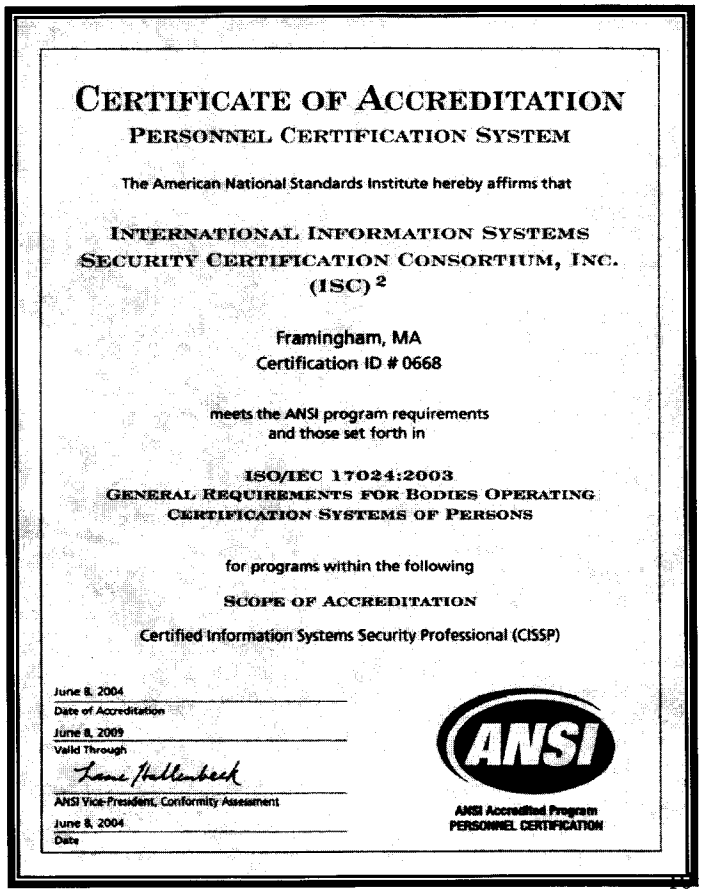
- ***International*** – based upon international compendium of industry "best practices" – (i.e., (ISC)²'s CBK®)
- ***Examination*** – Rigorous exam to assure knowledge of CBK
- ***Independent*** – Not product or service specific – Tests habitual knowledge
- ***Endorsement*** – Strict endorsement and audit process to verify candidate assertions
- ***Ethics*** – Comprehensive set of behavioral guidelines – Professional judgment
- ***Experience*** – Practical application of the CBK is acquired through experience
- ***Re-certification*** – Continuing education/training to maintain credential
- ***Maturity*** – Wide acceptance as the true measure of competency

(ISC)² Career Path – "Cradle-to-Grave Constituent Support"



CISSP® ISO/IEC 17024 Accreditation – What it Means

- **(ISC)² CISSP Credential**
  - 1st worldwide information security credential to achieve ISO/IEC 17024
  - 1st IT organization to be accredited by ANSI for ISO/IEC 17024
- **What does it mean for…**
  - The information security profession
    - Global recognition and acceptance of CISSP
  - Businesses and governments
    - Discriminator for employers and businesses
  - (ISC)² CISSP credential holders
    - International recognition



CERTIFICATE OF ACCREDITATION
PERSONNEL CERTIFICATION SYSTEM

The American National Standards Institute hereby affirms that

INTERNATIONAL INFORMATION SYSTEMS SECURITY CERTIFICATION CONSORTIUM, INC. (ISC)²

Framingham, MA
Certification ID # 0668

meets the ANSI program requirements and those set forth in

ISO/IEC 17024:2003
GENERAL REQUIREMENTS FOR BODIES OPERATING CERTIFICATION SYSTEMS OF PERSONS

for programs within the following

SCOPE OF ACCREDITATION

Certified Information Systems Security Professional (CISSP)

June 8, 2004
Date of Accreditation
June 8, 2009
Valid Through
ANSI Vice-President, Conformity Assessment
June 8, 2004
Date

ANSI Accredited Program
PERSONNEL CERTIFICATION