



NORTHROP GRUMMAN

FIPS 201 PIV Card Requirements and Planning Activities

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**Dwayne M. Pfeiffer, CISSP
Project Manager/Principal
Engineer**



Topics

- **HSPD-12 PIV Card Requirements**
- **PIV Card Topography (printed data)**
- **PIV Card Visual Security Features**
- **PIV Card Data Model (encoded data)**
- **Planning with Stakeholders**



HSPD-12 PIV Card Requirements

A secure and reliable identification credential that:

- **Is issued based on sound criteria for verifying an individual employee's identity**
- **Is strongly resistant to identity fraud, tampering, counterfeiting, and terrorist exploitation**
- **Can be rapidly authenticated electronically**
- **Is issued only by providers whose reliability has been established by an official accreditation process.**

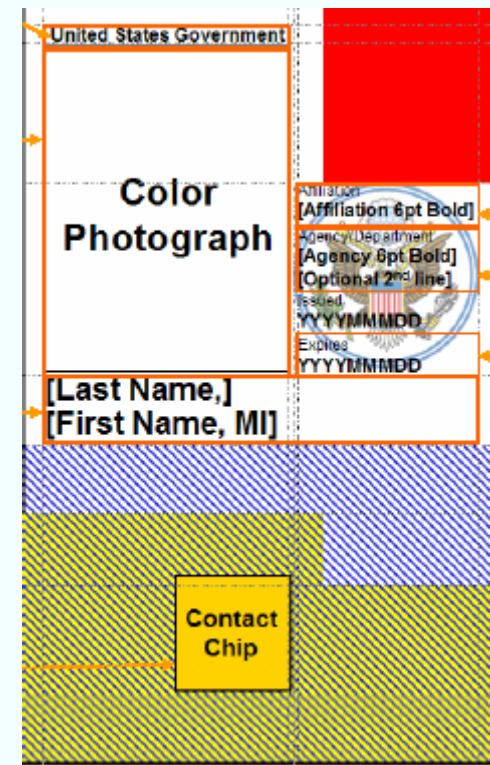


**Homeland Security Presidential
Directive 12 (HSPD-12)**

FIPS 201 Physical PIV Card Topology

The PIV Card's printed design requirements include:

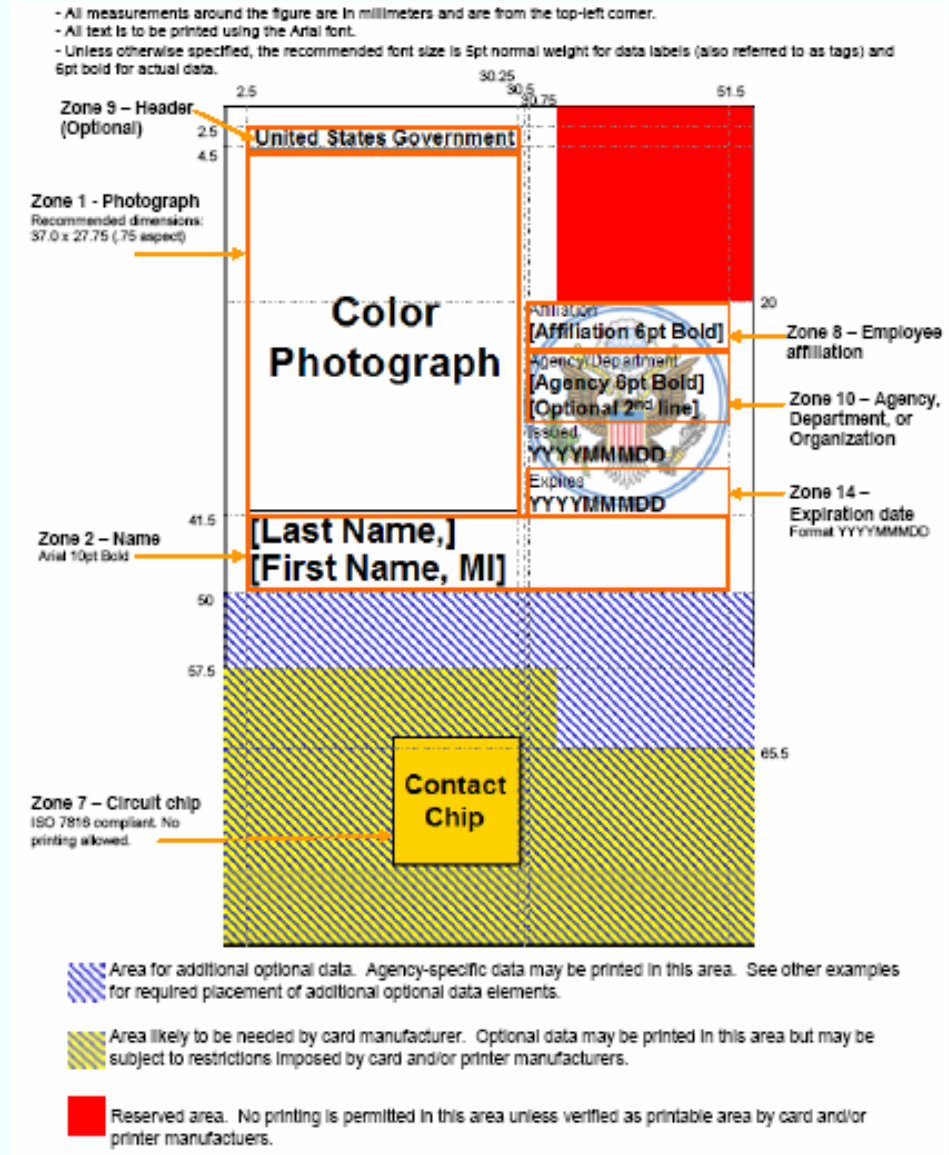
- Designed to meet the objectives of improved security and interoperability
- Has a common look that is recognizable as a Federal identification card (e.g., consistent placement of mandatory printed components and technology)
- Flexible design to support individual department and agency requirements (i.e., allows for optional data)



FIPS 201 Physical PIV Card Topology - Front

Mandatory Data Items:

- Zone 1 – Photograph
- Zone 2 – Full Name
- Zone 8 – Employee Affiliation
- Zone 10 – Organizational Affiliation
- Zone 14 – Expiration Date





FIPS 201 Physical PIV Card Topology - Front

Optional items:

- Zone 3—Signature
- Zone 4—Agency Specific text area
- Zone 5—Rank
- Zone 6—Portable Data File (PDF) Two-Dimensional Bar Code
- Zone 9—Header
- Zone 11—Agency Seal
- Zone 12—Footer
- Zone 13—Issue Date
- Zone 15—Color-Coding for Employee Affiliation
- Zone 16—Photo Border for Employee Affiliation
- Zone 17—Agency Specific Data

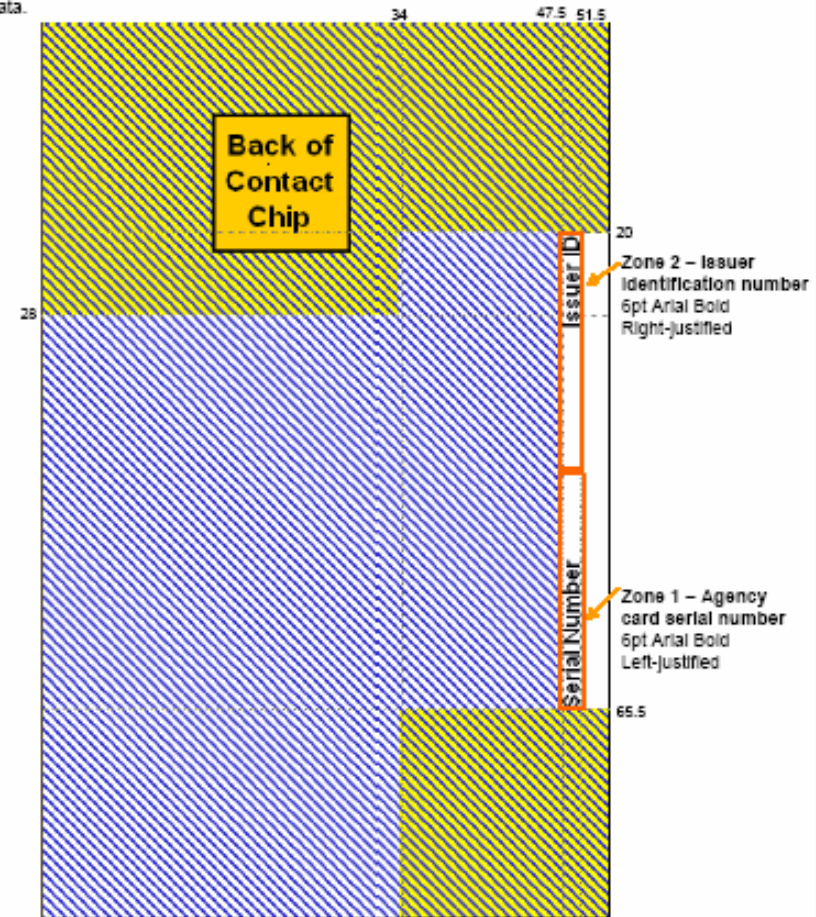



FIPS 201 Physical PIV Card Topology - Back


Mandatory Data Items:

- Zone 1—Agency Card Serial Number
- Zone 2—Issuer Identification

All measurements are in millimeters and are from the top-left corner.
 All text is to be printed using the Arial font.
 Unless otherwise specified, the recommended font size is 5pt normal weight for tags and 6pt bold for data.



 Optional data area. Agency-specific data may be printed in this area. See examples for required placement of optional data elements.

 Optional data area likely to be needed by card manufacturer. Optional data may be printed in this area, but will likely be subject to restrictions imposed by card and/or printer manufacturers.



FIPS 201 Physical PIV Card Topology - Back

Optional items:

- Zone 3—Magnetic Stripe
- Zone 5—Physical Characteristics of Cardholder
- Zone 6—Additional Language for Emergency Responder Officials
- Zone 7—Standard Section 499, Title 18 Language
- Zone 8—Linear 3 of 9 Bar Code
- Zone 9—Agency-Specific Text
- Zone 10—Agency-Specific Text



FIPS 201 Visual Security Features

The PIV Card Must include at least one.

Some examples are:

- **Optical varying structures**
- **Optical varying inks**
- **Laser etching and engraving**
- **Holograms**
- **Holographic images**
- **Watermarks**



SP 800-73 Data Model for IC Chip

PIV Card Mandatory and Optional Data containers

RID 'A0 00 00 00 01 16'	ContainerID	Access Rule	Contact / Contactless	M/O
Card Capability Container	0xDB00	Read Always	Contact	Mandatory
CHUID Buffer	0x3000	Read Always	Contact & Contactless	Mandatory
PIV Authentication Certificate Buffer	0x0101	Read Always	Contact	Mandatory
Fingerprint Buffer	0x6010	PIN	Contact	Mandatory
Printed Information Buffer	0x3001	PIN	Contact	Optional
Facial Image Buffer	0x6030	PIN	Contact	Optional
Digital Signature Certificate Buffer	0x0100	Read Always	Contact	Optional
Key Management Certificate Buffer	0x0102	Read Always	Contact	Optional
Card Authentication Certificate Buffer	0x0500	Read Always	Contact	Optional
Security Object Buffer	0x9000	Read Always	Contact	Mandatory



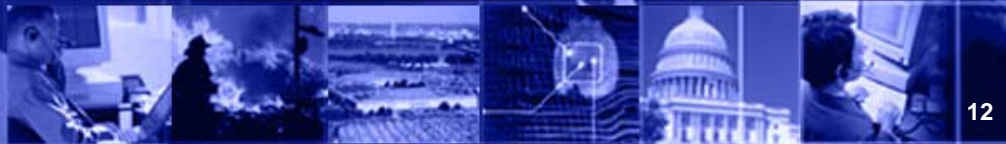
Planning with Stakeholders

It's extremely important to plan for your PIV Card

- **Printed data and design options**
- **Encoded data design options**
- **Visual security features**

Include all affected stakeholders

- **Human Resources**
- **Security**
- **Executives**
- **Information Technology**



QUESTIONS & DISCUSSION





Contact Information

**Dwayne M. Pfeiffer, CISSP
Northrop Grumman
12005 Sunrise Valley Drive
Reston, Virginia 20191**

**Office: 703-453-8894
Email: dwayne.pfeiffer@ngc.com**