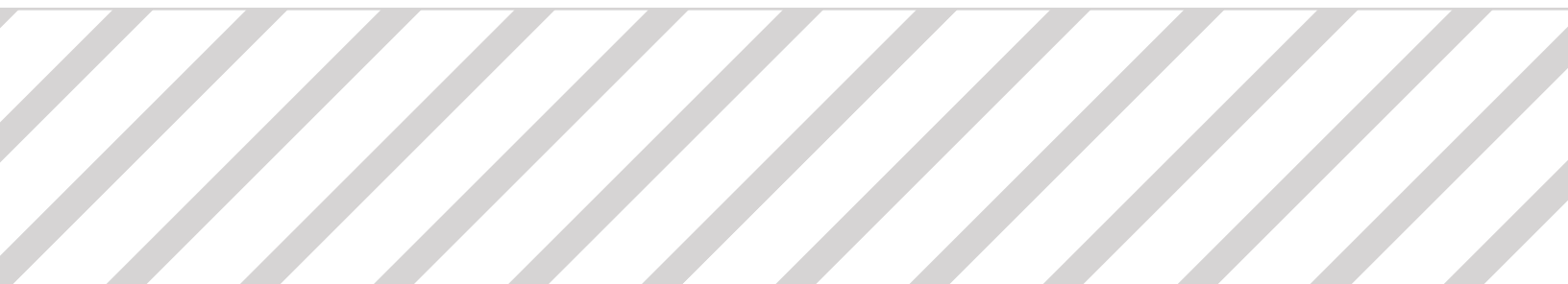




# FLASHARRAY™ IMPLEMENTATION PROFESSIONAL **EXAM GUIDE**

EXAM NUMBER: FAIP\_001



# TABLE OF CONTENTS

ABOUT PURE STORAGE CERTIFIED EXAMS.....	3
SECTION 1: EXAM REGISTRATION INSTRUCTIONS.....	4
1.1. EXAM REGISTRATION INFORMATION.....	4
1.2 CREATING AN ONLINE ACCOUNT.....	4
1.3 ONLINE EXAM COMPUTER REQUIREMENTS.....	4
1.4 DAY OF THE EXAM.....	5
1.5 EXAM SCORING.....	6
1.6 AFTER THE EXAMS.....	6
1.7 YOUR CANDIDATE RECORD.....	6
SECTION 2: FLASHARRAY IMPLEMENTATION	
PROFESSIONAL EXAM STRUCTURE.....	7
SECTION 3: FLASHARRAY IMPLEMENTATION	
PROFESSIONAL EXAM TOPICS.....	7
3.1 DOMAIN NAMES.....	7
3.2 TASK INFORMATION.....	7
3.3 DOMAIN DISTRIBUTION.....	8
SECTION 4: THE PURE STORAGE CERTIFIED IMPLEMENTATION	
PROFESSIONAL - FLASHARRAY JOB ROLE.....	8
4.1 THE MINIMALLY QUALIFIED CANDIDATE (MQC).....	8
4.2 MQC WORK EXPERIENCE.....	9
SECTION 5: EXAM PREREQUISITES.....	9
SECTION 6: DETERMINE EXAM READINESS.....	9
6.1 ON-THE-JOB EXPERIENCE.....	9
6.2 SELF-ASSESSMENT PREPARATION WORKSHEET.....	9
SECTION 7: PURE STORAGE FLASHARRAY IMPLEMENTATION	
PROFESSIONAL - EMPLOYEE EXAM SAMPLE QUESTIONS.....	11
SECTION 8: ANSWER KEY.....	13

## ABOUT PURE STORAGE CERTIFIED EXAMS

To be a Pure Storage Certified Implementation Professional - FlashArray is to demonstrate expertise in delivering fast and reliable solutions that unlock business value and eliminate deployment risk. Pure Storage's Certification exams have been developed following industry best practices to strive for reliable and valid test score interpretations.

### **This guide has two purposes:**

1. to provide you with the recommended preparations for the Pure Storage FlashArray Implementation Professional Exam, and
2. to help you determine if you are ready to sit for the exam.

This guide outlines the knowledge, skills, and abilities required of a “minimally qualified candidate” for a specific job role, which will be evaluated in the exam.

# SECTION 1: EXAM REGISTRATION INSTRUCTIONS

## 1.1. EXAM REGISTRATION INFORMATION

- Exam name: Pure Storage FlashArray Implementation Professional
- Exam number: FAIP\_001
- Exam cost: \$200 (US Dollars)

## 1.2 CREATING AN ONLINE ACCOUNT

1. Go to [www.examslocal.com](http://www.examslocal.com)
2. Type “Pure Storage” in the search box.
3. Either confirm the scheduling process or sign in. The system will automatically recognize if you are eligible and will allow you to move forward.
4. Select the date and time you want to take the exam. Please note that exams require a 24-hour lead-time to schedule. The earliest date you will be able to make a reservation will be the next business day. The time you select for your exam will be based on the time zone that is set on your web browser.
5. Complete a compatibility check by visiting: [www.examslocal.com/ScheduleExam/Home/CompatibilityCheck](http://www.examslocal.com/ScheduleExam/Home/CompatibilityCheck), and agree to the terms and conditions in order to schedule your exam. The time you select for your exam is based on the time zone that is set on your web browser.

## 1.3 ONLINE EXAM COMPUTER REQUIREMENTS

**Your computer must meet the minimum requirements of PSI/Innovative Exams including:**

- A stable broadband Internet service with a bandwidth of at least 512 Kbps down and 256 Kbps up
- Chrome or Chromium web browser
- Webcam
- Microphone

To check if your computer meets the minimum requirements of the exam provider, visit <http://www.examslocal.com/ScheduleExam/Home/CompatibilityCheck>. Otherwise, no software installations are required.

We do not install any software on your computer for this exam and, therefore, we do not have any access to your computer or its contents. The only access the proctor has to your computer is the webcam and desktop sharing facilitated by your web browser. You will experience a virtual lockdown browser system that utilizes secure communications and encryption. Upon the completion of the exam, all proctor “view-only access” is automatically removed. PSI/Innovative Exams is our partner that helps us to proctor and deliver the exam.

## 1.4 DAY OF THE EXAM

### Requirements:

- You must provide one form of government-issued photo ID (e.g., driver's license, passport).
- If you do not provide acceptable proof of identification via webcam to the proctor prior to the exam, you will not be allowed to take the exam. No refund or rescheduling is provided when an exam cannot be started due to failure to provide proper identification.
- You must also consent to having your photo taken. The ID will be used for identity verification only and will not be stored.
- You must be alone in a quiet environment such as a conference room or home office.
- The proctor will ask you to show your desk and surroundings before your exam can start.
- You cannot consult notes or books during the exam. The proctor will not allow use of documents, materials, or websites during the exam.

### Log on to Launch the Exam

To launch the exam, visit <http://www.examslocal.com/>

1. Click "Sign In" and enter login credentials.
2. Click "My Exams".
3. Click the green "Launch" button.

NOTE: The timer for your exam does not start until the Innovative Exams' proctor has launched the exam. You will have 120 minutes to complete the exam. You may start your exam any time between 15 minutes before and 15 minutes after your scheduled start time. However, if you do not start your exam within this 30-minute timeframe, the system will automatically mark you as a No-Show and you will not be able to take your exam.

### Special Considerations

- How to reset a forgotten password: Visit [www.examslocal.com/Account/LostPassword](http://www.examslocal.com/Account/LostPassword). Once you've reset your password you can sign in via: [www.examslocal.com](http://www.examslocal.com) then navigate to "Sign In".
- What to do if [www.examslocal.com](http://www.examslocal.com) says you are not eligible for the exam: Verify that you have registered and paid for the exam (or have used an eCredit) at [www.examslocal.com](http://www.examslocal.com). Check your inbox for a confirmation email from [Do\\_Not\\_Reply@innovativexams.com](mailto:Do_Not_Reply@innovativexams.com). If you are still listed as ineligible for the exam, please email Innovative Exams at [examsupport@examslocal.com](mailto:examsupport@examslocal.com), or call 888-504-9178 / 312-612-1049 for additional support. For any additional questions or concerns, please contact the Pure Storage certification team at [certification@purestorage.com](mailto:certification@purestorage.com).

## 1.5 EXAM SCORING

- One point is awarded for each correct answer to a single-response or multi-response question.
- No points are awarded for either incorrectly answered or unanswered single- or multi-response questions.

## 1.6 AFTER THE EXAM

Your candidate record will be updated with the results of your exam 24-48 hours following the exam. Please see section 1.8 of this exam guide for instructions on how to review your candidate record.

### If You Pass

Your candidate record will have an eCertificate when you achieve a certification, as well as a Pure Storage certification logo for this exam. A certification is valid for two years. Upon expiration, you must take the exam again.

### If You Fail

You will need to wait 72 hours to re-schedule the exam

## 1.7 YOUR CANDIDATE RECORD

To access your candidate record, visit <https://www.certmetrics.com/purestorage/login.aspx>. From here you will be able to access your score report(s).

**Your first time logging in, you will need to create an account. To create an account:**

1. Click “Never logged in before?” on the landing page.
2. Enter either your email address or data from your score report, as shown below.

The screenshot shows the 'CANDIDATE LOGIN' page for Pure Storage. At the top left is the Pure Storage logo with the tagline 'Helps Possible'. At the top right is the text 'CANDIDATE LOGIN'. Below this is a message: 'The system will send an email that includes a link which will allow you to set your password and obtain your login ID. The email address we have on file is most commonly the same one you supplied the last time you took an exam.' There are two main sections for login:

- By email address:** This section includes the instruction 'Please use your email address to begin the process. If you do not know your email address, you may use your score report to begin the process.' It features a text input field labeled 'Email address' and a red 'SUBMIT' button below it.
- By score report:** This section includes the instruction 'Please enter the requested data from your score report and then type in a password to obtain your login ID.' It features three text input fields labeled 'Last name', 'Registration number', and 'New email address', with a red 'SUBMIT' button below them.

3. You will receive an email with instructions on how to access your account.

Once you have created your account, you will be able to login with your login ID and password.

## SECTION 2: FLASHARRAY IMPLEMENTATION PROFESSIONAL EXAM STRUCTURE

- Number of questions: 75
- Question types: Multiple Choice (three or four options, one to two correct answers)
- Time limit: 120 minutes

## SECTION 3: FLASHARRAY IMPLEMENTATION PROFESSIONAL EXAM TOPICS

### 3.1 DOMAIN NAMES

The job tasks measured on the exam are grouped into the following domains of practice:

- Pre-Install
- Install
- Upgrade
- Post-Install/Upgrade

### 3.2 TASK INFORMATION

Within each domain, you should be able to perform specific tasks as a Pure Storage Certified Implementation Professional - FlashArray, including but not limited to:

- Pre-Install
  - Validate site-survey data prior to installation
  - Determine if best practice requirements for installation/upgrade have been met
- Install
  - Identify hardware and software installation procedures for the array
- Upgrade
  - Identify hardware and software upgrade procedures
- Post-Install/Upgrade
  - Evaluate the array to ensure install/upgrade was successful
  - Determine when Pure Storage Support should be engaged
  - Perform GUI walkthrough with the customer

### 3.3 DOMAIN DISTRIBUTION

The questions on the exam are distributed as follows for each domain. (Note: each question carries the same weight and there is no partial credit for any question.)

DOMAINS	PERCENT OF EXAM
Pre-Install	19%
Install	29%
Upgrade	35%
Post-Install / Upgrade	17%

## SECTION 4: THE PURE STORAGE CERTIFIED IMPLEMENTATION PROFESSIONAL - FLASHARRAY JOB ROLE

This exam is designed for individuals who are currently performing or have previous work experience with the job responsibilities of a Pure Storage Certified Implementation Professional - FlashArray.

### 4.1 THE MINIMALLY QUALIFIED CANDIDATE (MQC)

To pass the exam, you must possess at least the minimum level of knowledge, skills, and abilities required of a Pure Storage Certified Implementation Professional - FlashArray. The MQC is either a partner or puritan who has 3-5 years of storage industry experience and 6-12 months of Pure Storage experience.

**The Pure Storage Certified Implementation Professional - FlashArray should be able to perform the following tasks without any assistance:**

- Perform physical installation of FlashArray hardware and Purity software installation
- Use and explain the quick install guide and hardware upgrade guide to customers
- Prepare and confirm the content for the site preparation survey prior to upgrades
- Perform installation of FlashArray: new, upgrades, generational NDU, capacity upgrades and evacuations
- Validate functionality through health checks
- Confirm I/O balance

**The Pure Storage Certified Implementation Professional - FlashArray should be able to participate in the following task with substantial guidance, mentoring, or instruction:**

- Architectural roadmap discussions



## 4.2 MQC WORK EXPERIENCE

A minimally qualified Pure Storage Certified Implementation Professional - FlashArray typically has the following work experience:

- Intermediate level role
- 3-5 years of storage industry experience
- 6-12 months of Pure Storage experience

## SECTION 5: EXAM PREREQUISITES

You must successfully pass the Pure Storage Foundation Exam prior to taking the Pure Storage FlashArray Implementation Professional examination.

## SECTION 6: DETERMINE EXAM READINESS

Nothing can guarantee that you will pass your test; however, the more practical work experience you have, the better your chances are to pass the test. Use the self-assessment preparation worksheet (below) to evaluate your level of readiness.

### 6.1 ON-THE-JOB EXPERIENCE

Since Pure Storage exams measure knowledge, skills, and abilities for a specific job role, one of the best ways to prepare for the exam is to ensure you have the minimum work experience, as described in this guide.

### 6.2 SELF-ASSESSMENT PREPARATION WORKSHEET

Use the following worksheet to review the exam topics, and assess your own readiness. If you need to prepare more for a certain topic, determine if you need training, on the-job-experience, or both.

#### I CAN:

##### Pre-Install

- Check whether host port names and proxy names are valid
- Assess whether the configuration and environment are correct for installation
- Identify whether a support case needs to be opened during pre-installation

## **Install**

- Perform both a physical and software installation of the array, including following the install guide, executing required software changes to the FlashArray, and validating connectivity
- Identify whether a support case needs to be opened during installation

## **Upgrade**

- Follow the install guide to perform hardware upgrades, including consolidating capacity, verifying cabling, etc.
- Execute required software changes on the FlashArray to configure the environment
- Identify whether a support case needs to be opened during the upgrade

## **Post-Install/Upgrade**

- Determine whether an installation has been successful
- Determine whether an upgrade has been successful
- Identify whether a support case needs to be opened post-installation
- Successfully walk a customer through the product and GUI
- Assess customer satisfaction with the upgrade

## SECTION 7: PURE STORAGE FLASHARRAY IMPLEMENTATION PROFESSIONAL - EMPLOYEE EXAM SAMPLE QUESTIONS

Review and practice taking exam questions to get a sense for the types of questions on the exam. Please note that **your performance here does not indicate how you will do on the actual exam**. To fully prepare for the exam, closely review the topic areas and objectives in this Exam Guide. The correct answers are at the end of the exam guide.

1. A FlashArray//X has 3 iSCSI cards in each controller.

What is the maximum number of Ethernet cables that the customer needs to provide for the iSCSI initiators to be connected utilizing all of the ports on both controllers, including the on-board iSCSI ports?

- A. 12
- B. 16
- C. 20
- D. 24

2. Which upgrade is included in an Evergreen Gold Subscription after 3 years?

- A. Capacity
- B. Controllers
- C. 32Gb FC card
- D. 100Gb Ethernet card

3. A customer has purchased a new //X20R2 array and would like to use existing 1g Ethernet switches.

Which additional components are required to continue using the existing switches and CAT-6 cables on the new array?

- A. 1Gb/s SFP Transceivers
- B. Copper 1Gb/s Transceivers
- C. OM3 cabling
- D. qSFP adapters

4. A customer sees a performance impact to their host environment during a shelf evacuation.

Which action should an Implementation Engineer take to identify the cause of this issue?

- A. Check if capacity is above 100%
- B. Check Pure1 to see if the load percentage is above 80%
- C. Check if capacity is above 80%
- D. Check Pure1 to see if the load percentage is above 60%

5. During the upgrade to a FlashArray//X70R2, power feed is discovered to be 120VAC.

Which step should an Implementation Engineer perform next to complete this upgrade?

- A. Call Support and request a step-up transformer
- B. Continue with the upgrade as planned, ensuring both power supplies are connected
- C. Use the 1600W power supply provided in the NDU kit
- D. Advise the client that the FlashArray//X70R2 must use 208VAC

6. How much rack space is required for a FlashArray chassis install?

- A. 3U
- B. 4U
- C. 7U
- D. 2U

7. Which procedure should an Implementation Engineer follow when a hardware NDU pre-upgrade check shows SAS chains miscabled?

- A. Continue as normal if the array has no other issues
- B. Follow the installation guide to re-cable the array
- C. Contact Support for a re-cabling procedure
- D. Power off the array and re-cable

## SECTION 8: ANSWER KEY

1. A FlashArray//X has 3 iSCSI cards in each controller.

What is the maximum number of Ethernet cables that the customer needs to provide for the iSCSI initiators to be connected utilizing all of the ports on both controllers, including the on-board iSCSI ports?

A. 12

**B. 16**

C. 20

D. 24

2. Which upgrade is included in an Evergreen Gold Subscription after 3 years?

A. Capacity

**B. Controllers**

C. 32Gb FC card

D. 100Gb Ethernet card

3. A customer has purchased a new //X20R2 array and would like to use existing 1g Ethernet switches.

Which additional components are required to continue using the existing switches and CAT-6 cables on the new array?

A. 1Gb/s SFP Transceivers

**B. Copper 1Gb/s Transceivers**

C. OM3 cabling

D. qSFP adapters

4. A customer sees a performance impact to their host environment during a shelf evacuation.

Which action should an Implementation Engineer take to identify the cause of this issue?

**A. Check if capacity is above 100%**

B. Check Pure1 to see if the load percentage is above 80%

C. Check if capacity is above 80%

D. Check Pure1 to see if the load percentage is above 60%

5. During the upgrade to a FlashArray//X70R2, power feed is discovered to be 120VAC.

Which step should an Implementation Engineer perform next to complete this upgrade?

- A. Call Support and request a step-up transformer
- B. Continue with the upgrade as planned, ensuring both power supplies are connected
- C. Use the 1600W power supply provided in the NDU kit

**D. Advise the client that the FlashArray//X70R2 must use 208VAC**

6. How much rack space is required for a FlashArray chassis install?

**A. 3U**

B. 4U

C. 7U

D. 2U

7. Which procedure should an Implementation Engineer follow when a hardware NDU pre-upgrade check shows SAS chains miscabled?

A. Continue as normal if the array has no other issues

B. Follow the installation guide to re-cable the array

**C. Contact Support for a re-cabling procedure**

D. Power off the array and re-cable

## SUPPORT

For information on Pure Storage's certification programs, visit [www.examslocal.com](http://www.examslocal.com). To contact us, please send an email to [certification@purestorage.com](mailto:certification@purestorage.com).



Pure Storage, Inc.  
Twitter: [@purestorage](https://twitter.com/purestorage)  
[www.purestorage.com](http://www.purestorage.com)

650 Castro Street, Suite #260  
Mountain View, CA 94041

T: 650-290-6088  
F: 650-625-9667

Sales: [sales@purestorage.com](mailto:sales@purestorage.com)  
Support: [support@purestorage.com](mailto:support@purestorage.com)  
Media: [pr@purestorage.com](mailto:pr@purestorage.com)

© 2018 Pure Storage, Inc. All rights reserved.  
ps\_sg\_faimplementation-pro-exam2018\_12