

ASSOCIATE EXAM READINESS GUIDE

# FlashBlade® Architect Associate

Exam Number: FBAA\_004

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## About Pure Storage® Certified Exams

Demonstrate your knowledge, skills and ability to identify, qualify, and architect FlashBlade® solutions by completing the FlashBlade Architect Associate certification exam. Pure Storage's certification exams have been developed following industry best practices to strive for reliable and valid test score interpretations.

### This guide has three purposes:

- to provide information to help you prepare for the Pure Storage exam
- to provide recommended references to help you prepare for the Pure Storage FlashBlade Architect Associate Exam
- 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.

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## Section 1: Exam Registration Instructions

### 1.1. Exam Information

- Exam name: Pure Storage FlashBlade Architect Associate
- Exam number: FBAA\_004
- Exam cost: \$129 (US Dollars)
- Number of questions: 60
- Question types: Multiple Choice (three, four, five, or six options; one, two, or three correct answers)
- Time limit: 120 minutes

### 1.2. Creating an Online Account

1. Go to the [ExamStudio Storefront](#).
2. Select “Pure Storage FlashBlade Architect Associate”.
3. Either confirm the scheduling process or log in. The system will automatically recognize if you are eligible and will allow you to move forward.
4. Log in to your candidate dashboard and click “Schedule” under the Actions tab.

5. Select the appropriate time zone; then, 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 on which you can make a reservation is the next business day.
6. Complete a technical compatibility check by visiting <https://go.proctoru.com/testitout>

### 1.3. Online Exam Computer Requirements

Your computer must meet the minimum requirements of ProctorU, including:

- A stable broadband internet service with a download speed of at least 12Mbps down and 3Mbps up
- Chrome or Firefox web browser. Download ProctorU extensions: [Chrome](#) or [Firefox](#)
- Webcam
- Microphone

To check if your computer meets the minimum requirements of the exam provider, visit <https://go.proctoru.com/testitout>.

To watch a video on how ProctorU works, please click [here](#).

#### ProctorU Requirements:

Ensuring our exams are secure only increases the value of a Pure certification. Info provided [here](#) will walk you through the steps to take just before your exam, including testing your equipment, what you need to have on hand for your exam, and what you can expect from the launch process. **Your computer must meet the minimum requirements of ProctorU.**

### 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 have your photo taken. The ID will be used for identity verification only and will not be stored.
- You must be in a private, well-lit environment such as a conference room or home office.
- You must close all third-party programs and unplug any secondary monitors.
- 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 the use of documents, materials, or websites during the exam.
- Make sure you have downloaded the ProctorU extension for either [Chrome](#) or [Firefox](#).

#### Log in to Launch the Exam

To launch the exam, log in to your [ExamStudio account](#).

1. Enter your login credentials.
2. Click "Start Exam" under the Actions tab on your dashboard.

**NOTE:** The timer for your exam does not start until the proctor launches the exam. You will have 120 minutes to

complete the exam. You may start your exam once the countdown timer reaches 0:00:00. If you do not start your exam within 15 minutes of this time frame, the system will automatically mark you as a No-Show and you will not be able to take your exam.

### Special Considerations

- To reset a forgotten password, visit <https://portal2.examstudio.com/ResetPassword.aspx?id=100106>. Once you reset your password, you can log in via your [candidate portal](#).
- For additional questions regarding ProctorU, please visit this [link](#).
- For any other additional questions or concerns, please contact the Pure Storage certification team at [certadmin@purestorage.com](mailto:certadmin@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-response 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 1.7 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 2 years. Upon expiration, you will need to take the exam again.

#### If You Fail:

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

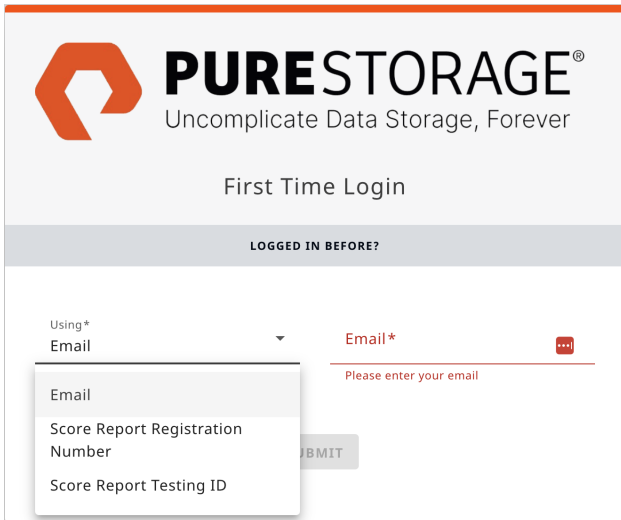
### 1.7. Your Candidate Record

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

The first time you log in, you will need to create an account.

#### To create an account:

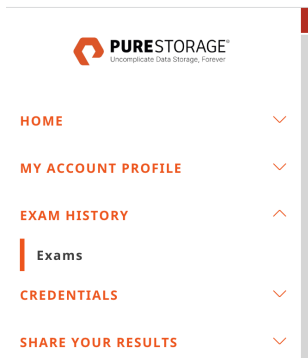
1. Click "Never logged in before?" on the landing page.
2. Enter either your email address or data from your score report, as shown below.



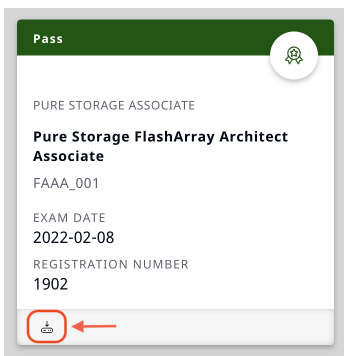
3. You will receive an email with instructions on how to access your account. Once you create your account, you will be able to log in with your login ID and password.

**To retrieve your score report(s):**

After you log in, click Exam History, then Exams.



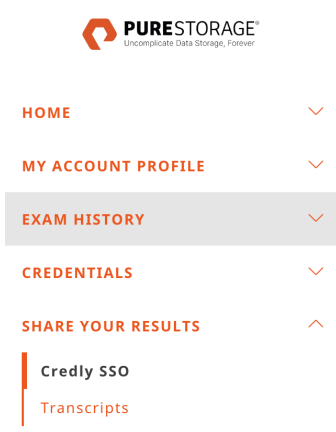
You will then see the exam card view for each of your exams. Click the icon in the lower left to download your score report.



**To share your results:**

Click Share Your Results. From this menu, you can connect to Credly to download your digital badge and certificate.

You can also create a custom transcript that you can download or share.



## Section 2: Pure Storage FlashBlade Architect Associate Exam Topics

### 2.1. Domain Names and Distribution

The job tasks measured on the exam are grouped into the following domains of practice and the questions on the exam are distributed as follows.

NOTE: Each question carries the same weight, and there is no partial credit for any question.

Domain	Percent of Exam
Workload Evaluation and Planning	20%
Qualify, Sell, and Architect	40%
FlashBlade Architecture	40%

### 2.2. Task Information with Resources

Within each domain, you will be asked about specific tasks you should be able to perform as a Pure Storage Certified FlashBlade Architect Associate, including but not limited to:

#### Workload Evaluation and Planning

- Analyze and interpret performance metrics.
  - [FlashBlade User Guides \(use the latest guide version\)](#)
  - [Pure1 Manage Overview](#)
- Analyze and interpret capacity usage.
  - [Pure1 Manage - Analytics Pages](#)
- Determine future capacity, performance, and hardware requirements.
  - [FlashBlade Sizer](#)

**Qualify, Sell and Architect**

- Demonstrate an understanding of FlashBlade use cases.
  - [Verticals and Industries](#)
  - [The Purity//FB Architecture](#)
  - [FlashBlade SafeMode for Object Store](#)
  - [Fast SQL Server Backup and Restore with FlashBlade®](#)
  - [UFFO: Unified Fast File and Object Storage](#)
- Identify and size an appropriate configuration for a given workload.
  - [FlashBlade Sizer](#)
- Identify market trends and opportunities.
  - [Evergreen//One](#)
  - [Everything Everywhere All at One with Evergreen Subscriptions \(video\)](#)
  - [Unified Fast File and Object \(UFFO\) Platform](#)
  - [AI and AIRI](#)
  - [FlashBlade® SafeMode™](#)
  - [Boost Enterprise Imaging Performance with FlashBlade](#)
- Identify benefits of Pure Storage's Evergreen program
  - [Evergreen//One Sales](#)
  - [Evergreen//Forever Sales](#)
  - [Evergreen//Flex Sales](#)
  - [Evergreen Storage Program Description](#)
- Identify an appropriate consumption model given a specific scenario.
  - [Evergreen Storage Program FAQ](#)
  - [Evergreen//One Sales](#)
  - [Evergreen//Forever Sales](#)
  - [Evergreen//Flex Sales](#)
  - [Data Storage That Gives You Flexibility with Control](#)



## FlashBlade Architecture

- Demonstrate an understanding of Purity//FB architecture basics.
  - Video: [HW Architecture](#)
  - Video: [SW Architecture](#)
  - [Architectural Deep Dive \(resource will download on click\)](#)
  - [Performance Fundamentals \(resource will download on click\)](#)
  - [Flash Storage for All Data](#)
  - [FlashBlade//S Configuration Rules](#)
- Define FlashBlade features.
  - [RapidFile Toolkit for FlashBlade \(PureTools\)](#)
  - [Purity //FB 3.0- File Replication Reference Page](#)
  - [FlashBlade SafeMode for Object Store](#)
- Demonstrate an understanding of how FlashBlade scaling works.
  - [FlashBlade Sizer](#)
- Describe the hardware components of a FlashBlade system.
  - [The Purity//FB Architecture](#)
  - [FlashBlade Networking Best Practices](#)
- Identify architectural differences between FlashBlade models.
  - [How is FlashBlade//E different from FlashBlade//S?](#)
  - [How are FlashBlade//E and FlashBlade//S the same?](#)

## Section 3: The Pure Storage Certified FlashBlade Architect Associate 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 FlashBlade Architect Associate.

### 3.1. The Minimally Qualified Candidate (MQC)

To pass the exam, you must have at least the minimum level of knowledge, skills, and abilities required of a Pure Storage Certified FlashBlade Architect Associate. The MQC is a Pure Storage employee, partner, or customer system engineer or pre-sales engineer who has 1-3 years of storage industry experience and 3-12 months of Pure Storage experience. The MQC has general knowledge of Pure Storage portfolio and associated market differentiation with an emphasis on product positioning and qualifying solutions. The MQC knows how to architect Pure FlashBlade storage solutions leveraging Evergreen, Pure1, and other FlashBlade-related tools.

The Pure Storage Certified FlashBlade Architect Associate should be able to perform the following tasks without any assistance:

- Describe the capabilities of a FlashBlade feature set
- Determine which FlashBlade model/platform appropriately fits for a given use and size its configuration
- Articulate the Pure Storage Evergreen, Pure1, Sizer features and benefits
  - EG1, Flex
  - Non disruptive upgrading (NDU)
- Explain the design principles behind the Pure FlashBlade and how the design principles differentiate Pure from competitors such as:
  - Direct Flash architecture
  - Integrated scale-out networking
  - Unified file and object
  - Evergreen
- Qualify when to use FlashBlade for a workload
- Demonstrate awareness of Pure validated designs

### 3.2. MQC Work Experience

A minimally qualified Pure Storage Certified FlashBlade Architect Associate typically has the following work experience:

- Associate-level role
- Between 1 and 3 years of storage industry experience
- Between 3 and 12 months of Pure Storage experience

## Section 4: Determine Exam Readiness

Nothing guarantees that you will pass your test; however, the more practical work experience you have, the better your chances are of passing the test. Use the following self-assessment preparation worksheet to evaluate your level of readiness.

### 4.1. Exam Prerequisites

There are no prerequisites for the Pure Storage FlashBlade Architect Associate Examination.

### 4.2. On-the-Job Experience

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 make sure you have the minimum work experience as described in this guide.

### 4.3. Self-Assessment Preparation Worksheet

Use the following worksheet to review the exam topics and assess your own readiness. If you need additional preparation on a certain topic, there are additional links to information in the prior Task Information section as well as a Recommended Learning section where you will find recommendations and links to those learning opportunities.

### 4.3. Self-Assessment Preparation Worksheet

Use the following worksheet to review the exam topics and assess your own readiness. If you need additional preparation on a certain topic, there are additional links to information in the prior Task Information section as well as a Recommended Learning section where you will find recommendations and links to those learning opportunities.

Topic	Yes	No
<b>Workload Evaluation and Planning</b>		
Interpret performance graph components		
Interpret capacity metric components		
Differentiate between arrays that need more or less capacity		
Determine appropriate upgrades as new technology becomes available		
Determine recommended hardware configuration based on capacity needs		
Determine hardware requirements based on performance needs		

Qualify, Sell, and Architect	Yes	No
Determine customer challenges solved by FlashBlade		
Identify customer workloads appropriate for FlashBlade		
Calculate capacity needed based on expected Data Reduction Rate and current customer usage		
Determine correct capacity needed based on customer workload		
Explain suitability of features based on customer requirement(s)		
Identify how FlashBlade supports data protection		
Demonstrate an understanding of FlashArray vs. FlashBlade use cases		
Demonstrate an understanding Evergreen programs		
Identify how Evergreen lowers customer's TCO		

FlashBlade Architecture	Yes	No
Explain the failure tolerance in the FlashBlade		
Explain the basics of client access to FlashBlade		
Demonstrate an understanding of the IO path		
Explain DirectFlash benefits over SSDs		
Identify the features of a FlashBlade		
Identify what access protocols are supported on FlashBlade		
Identify replication technology supported by FlashBlade		
Demonstrate an understanding of scaling performance vs. capacity		
Appropriately scale system for a given workload		
Demonstrate an understanding of how FlashBlade multi-chassis deployment works		
Identify FlashBlade hardware components		
Distinguish between FlashBlade models		

## 4.4 Recommended Training

Training is not required to sit for the exam, but classes are available to provide additional information to help prepare for the exam. These classes are listed below.

### **Pure Core Portfolio**

Pure Core Portfolio is a self-paced, 4-hour training that provides an overview of the Pure Storage products and portfolio. By taking this course, you will gain a high-level understanding of why the product was made, its basic components, and how it can best be used. All learners are encouraged to take this training.

[Pure Core Portfolio - Partner Link](#)

[Pure Core Portfolio - Internal Link](#)

### **FlashBlade Architect Associate**

This instructor-led training is designed to provide learners with a more in-depth understanding of the FlashBlade. It will cover common use cases, benefits, features, and functionality of the FlashBlade. Learners will also be able to position and roughly size the FlashBlade at the end of this course. Self-paced labs will not be completed during the course but are available for learners to provide hands-on practice. While this course is not an exam prep course, the content is extremely relevant to the exam and will help prepare candidates to sit for it.

[FlashBlade Architect Associate – Instructor-Led Course – Partner Link](#)

[FlashBlade Architect Associate – Instructor-Led Course – Internal Link](#)

### **FlashBlade Architect Associate**

This one-hour self-paced course covers the FlashBlade//E array, focusing on the differences between //E and //S.

[FlashBlade//E Differences – Partner Link](#)

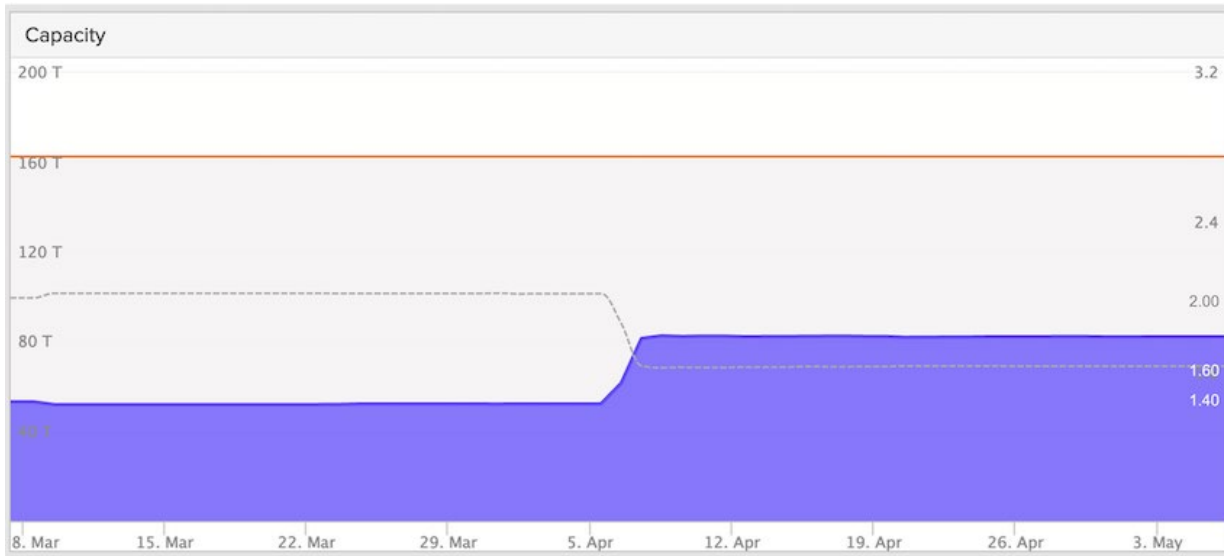
[FlashBlade//E Differences – Internal Link](#)

### Section 5: Pure Storage FlashBlade Architect Associate 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. Refer to the exhibit.



What is the estimated total data reduction of the FlashBlade array from 12-Apr to 19-Apr?

- A. 1.40:1
- B. 1.65:1
- C. 55 T
- D. 100 T

2. Cloud costs are increasing for a customer because they incur a lot of egress, API, and capacity costs. While their DR policy requires that some copies of data must be in the cloud, they are considering moving to a more hybrid cloud solution to help lower costs.

Which two solutions should be recommended for this client? (Select two.)

- A. Store the files in exports on prem on a FlashBlade
- B. Store the files in objects on prem on a FlashBlade
- C. Snapshot replicate the files to AWS
- D. Enable Fast Remove on the file system on the FlashBlade
- E. Replicate objects using native S3 to AWS

3. Which feature offers the best protection for data during ransomware attacks?

- A. Snapshots
- B. Object Replica Links
- C. SafeMode
- D. Policy Rules

4. Which two options are supported with FlashBlade replication? (Select two.)

- A. Filesystem to AWS S3
- B. Block Replication
- C. File Replication
- D. Object Replication

5. A customer is working on a new AI/ML project related to genetic sequencing. They want to store and retrieve billions of discreet genetic sequences in a single location and keep the data structure as simple as possible for their developers and data scientists.

Which FlashBlade feature is most suited to this project?

- A. NVMe
- B. S3
- C. SMB
- D. NFS

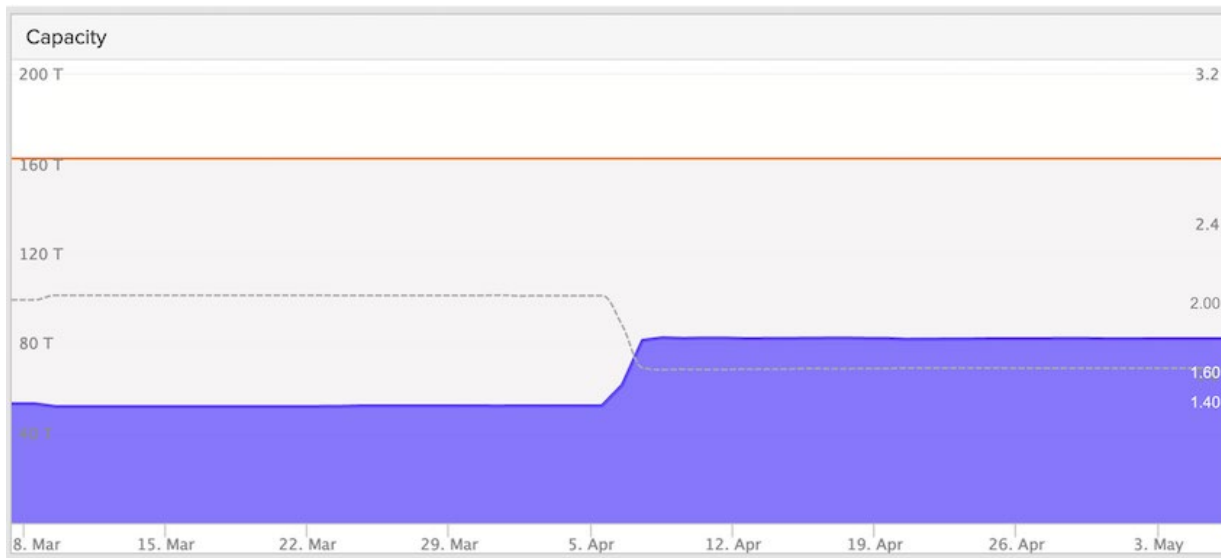
6. In a single chassis FlashBlade implementation, which components would normally connect directly to the customer-facing network?

- A. Fabric I/O Modules
- B. DirectFlash Blades
- C. DirectFlash Modules
- D. External Fabric Module

## Section 6: Answer Key

Correct answers are shown below in *bold italics*.

1. Refer to the exhibit.



What is the estimated total data reduction of the FlashBlade array from 12-Apr to 19-Apr?

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- B. **1.65:1**
- C. 55 T
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Which two solutions should be recommended for this client? (Select two.)

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- B. **Store the files in objects on prem on a FlashBlade**
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3. Which feature offers the best protection for data during ransomware attacks?

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- C. **SafeMode**
- D. Policy Rules

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- C. SMB
- D. NFS

6. In a single chassis FlashBlade implementation, which components would normally connect directly to the customer-facing network?

- A. **Fabric I/O Modules**
- B. DirectFlash Blades
- C. DirectFlash Modules
- D. External Fabric Module

## Support

For information on Pure Storage's certification programs, visit [this link](#). To contact us, email [certadmin@purestorage.com](mailto:certadmin@purestorage.com).

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