Comparison of AEMaaCS and AEM On-Prem in AWS

Adobe Experience Manager (AEM) offers two primary deployment models: AEM as a Cloud Service (AEMaaCS) and AEM on-premises hosted on AWS.
Each model has distinct characteristics in areas such as deployment, scalability, maintenance, customization, and cost.

Deployment and Infrastructure

- **AEM as a Cloud Service (AEMaaCS):**
    - **Fully Managed Service:** Adobe manages the entire infrastructure, including setup, maintenance, and scaling.
  - **Cloud Provider:** Primarily hosted on Microsoft Azure, with plans to expand to AWS in certain regions.

- **AEM On-Premises in AWS:**
  - **Self-Managed Infrastructure:** Your organization is responsible for deploying, configuring, and maintaining AEM instances on AWS infrastructure.
  - **Cloud Flexibility:** Offers the flexibility to choose AWS services and configurations tailored to your specific needs.

Scalability and Performance

- **AEMaaCS:**
  - **Auto-Scaling:** Automatically scales resources to handle varying traffic loads, ensuring consistent performance without manual intervention.
  - **High Availability:** Designed for minimal downtime, providing robust performance even during peak usage.

- **AEM On-Premises in AWS:**
  - **Manual Scaling:** Scaling requires manual configuration and monitoring, which can be resource-intensive.
  - **Custom Performance Tuning:** Allows for tailored performance optimization based on specific organizational requirements.

Maintenance and Upgrades

- **AEMaaCS:**
  - **Continuous Updates:** Adobe provides automated, seamless updates, ensuring access to the latest features and security patches without downtime.
  - **Reduced Operational Overhead:** Eliminates the need for in-house teams to manage updates and maintenance tasks.

- **AEM On-Premises in AWS:**
  - **Manual Upgrades:** Your team is responsible for planning and executing updates, which can be time-consuming and may require scheduled downtime.
  - **Full Control:** Offers complete control over the upgrade schedule and implementation.

Customization and Flexibility

- **AEMaaCS:**
  - **Standardized Environment:** Emphasizes best practices with some limitations on deep customization to maintain system integrity.
  - **Cloud Manager:** Utilizes Adobe's Cloud Manager for code deployment and CI/CD pipelines, streamlining development workflows.

- **AEM On-Premises in AWS:**
  - **Extensive Customization:** Provides the flexibility to deeply customize AEM instances to meet unique business needs.
  - **Choice of Tools:** Allows integration with preferred CI/CD tools and deployment strategies.

Cost Considerations

- **AEMaaCS:**
  - **Subscription-Based Pricing:** Costs are based on usage metrics such as page views and API calls, which can be more predictable for budgeting.

- **Lower Total Cost of Ownership:** Reduces the need for significant infrastructure investments and dedicated maintenance staff.

- **AEM On-Premises in AWS:**
  - **Variable Costs:** Expenses include AWS infrastructure, licensing, and operational costs, which can fluctuate based on resource usage and scaling needs.
  - **Capital Expenditure:** May require upfront investment in infrastructure and ongoing costs for system management.

Security and Compliance

- **AEMaaCS:**
  - **Adobe-Managed Security:** Benefit from Adobe's security protocols and compliance certifications, with regular updates to address vulnerabilities.
  - **Limited Direct Control:** Organizations rely on Adobe's security measures without direct access to underlying infrastructure.

- **AEM On-Premises in AWS:**
  - **Direct Security Management:** Your organization has full control over security configurations, policies, and compliance adherence.
  - **Responsibility:** Requires dedicated resources to monitor, update, and ensure the security of the AEM environment.

Conclusion

Choosing between AEM as a Cloud Service and AEM on-premises hosted in AWS depends on your organization's priorities:

- **Opt for AEMaaCS if you seek:**
  - A fully managed service with minimal operational overhead.
  - Automatic scaling and seamless updates.
  - A standardized environment with best practices.

- **Choose AEM On-Premises in AWS if you require:**
  - Full control over infrastructure and customization.

- **Tailored performance tuning and scaling strategies.**
  - **Direct management of security and compliance measures.**

Evaluate your organization's technical capabilities, customization needs, budget constraints, and strategic goals to determine the most suitable deployment model.