HPE Container Platform Service

Drive container adoption in your enterprise

Containerizing applications and moving them from preproduction to production

Innovation is driving unprecedented demand for cloud-native applications and the containerization of traditional applications. Application developers are also adopting analytics, deep learning, and machine learning into their application lifecycle, leveraging containers. Also, market forces and competition require that you bring these innovations and capabilities to market faster than ever before. Continuous Integration/Continuous Delivery (CI/CD) best practice methodology and automation are essential to driving agility in your service delivery. In order to determine the right path forward when it comes to cloud-native applications, you need to define your container strategy up front across your hybrid cloud. This would include determining container management platforms such as Red Hat® OpenShift, Docker Enterprise Edition, Mesosphere DCOS powered by Kubernetes.

HPE Container Platform Service helps your teams rapidly adapt in the age of application agility. The goals of the service are simple: faster time to application service delivery and lowering the costs and challenges of adopting the latest container strategies. The service enables your teams to run your container platforms in either on-premises or off-premises in a truly scalable, standard, repeatable, and reliable manner using HPE IP and best practice for automated integration of your unique characteristics into your production environment.

HPE Pointnext approach to container platforms

<table>
<thead>
<tr>
<th>Traditional applications delivery</th>
<th>Cloud-native continuous delivery</th>
<th>High-performance compute</th>
<th>AI/ML</th>
<th>Big Data</th>
<th>IoT</th>
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</table>

Container orchestration platform

- Red Hat
- Kubernetes
- Docker
- Mesosphere
- SUSE

Hybrid cloud management

<table>
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<tr>
<th>Off-premises (public cloud)</th>
<th>On-premises (private cloud)</th>
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<tbody>
<tr>
<td>AWS</td>
<td>HPE GreenLake Flex Capacity</td>
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<tr>
<td>Azure</td>
<td>HPE Synergy</td>
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<tr>
<td>GCP</td>
<td>HPE Composable Cloud</td>
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<td>HPE Apollo</td>
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</table>

Figure 1. Container platform in hybrid cloud including HPE technologies for on-premises solutions
Container platforms

**HPE Pointnext** has years of experience transitioning the way customers develop and operate applications workloads. Today, container platforms are being leveraged for many use cases, including traditional applications, microservices-based cloud-native development, and cloud advanced computing, such as machine learning. Containers can also be an effective method to avoid vendor lock-in and enable a hybrid cloud service delivery strategy. Working with our container management partners, we have created the right architectures, networking, storage, and automation to help you speed up innovation, leveraging our combined technologies and experience.

<table>
<thead>
<tr>
<th>Sprint</th>
<th>Viability: Sprint 1</th>
<th>Integrate and deploy: Sprint 2</th>
<th>Operate and scale: Sprint 3</th>
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<tr>
<td>Challenge</td>
<td>I need assistance on how to move from a POC to production in support of our container strategy at an enterprise level.</td>
<td>I need to enable automated and secure deployments of our applications in production by operationalizing a container platform on a highly available production cluster.</td>
<td>I want to move the container strategy into our production environment in a secure and governed structure leveraging a standard, reliable, repeatable approach.</td>
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<tr>
<td>Solution</td>
<td>Automated and secure deployment of legacy and cloud-native workloads to containers. Design of production integration requirements to support container strategy.</td>
<td>Automated container platform HA preproduction deployment; enablement of operation teams and integration to existing infrastructure; process and tooling defined for the enterprise.</td>
<td>Execution of the proven container strategy in a subset of production; enable the automated/integrated container environment as well as enable core operations teams to manage and monitor the health of the environment.</td>
</tr>
<tr>
<td>HPE Value</td>
<td>HPE has expertise to accelerate the adoption of containers and develop a design to integrate into production.</td>
<td>HPE experts accelerate the integration through automation IP and deployment strategy of container adoption with a plan to scale across the enterprise.</td>
<td>HPE has the expertise to move the container strategy into production—adopt, operate, and scale with confidence.</td>
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</tbody>
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**Milestone 1**
- I need assistance on how to move from a POC to production in support of our container strategy at an enterprise level.
- Automated and secure deployment of legacy and cloud-native workloads to containers. Design of production integration requirements to support container strategy.
- HPE has expertise to accelerate the adoption of containers and develop a design to integrate into production.

**Milestone 2**
- I need to enable automated and secure deployments of our applications in production by operationalizing a container platform on a highly available production cluster.
- Automated container platform HA preproduction deployment; enablement of operation teams and integration to existing infrastructure; process and tooling defined for the enterprise.
- HPE experts accelerate the integration through automation IP and deployment strategy of container adoption with a plan to scale across the enterprise.

**Milestone 3**
- I want to move the container strategy into our production environment in a secure and governed structure leveraging a standard, reliable, repeatable approach.
- Execution of the proven container strategy in a subset of production; enable the automated/integrated container environment as well as enable core operations teams to manage and monitor the health of the environment.
- HPE has the expertise to move the container strategy into production—adopt, operate, and scale with confidence.

**Figure 2. HPE Container Platform Service**

**Solution brief**

**Container platforms**

**HPE Pointnext** has years of experience transitioning the way customers develop and operate applications workloads. Today, container platforms are being leveraged for many use cases, including traditional applications, microservices-based cloud-native development, and cloud advanced computing, such as machine learning. Containers can also be an effective method to avoid vendor lock-in and enable a hybrid cloud service delivery strategy. Working with our container management partners, we have created the right architectures, networking, storage, and automation to help you speed up innovation, leveraging our combined technologies and experience.

**Service approach**

The service is designed with three key strategic sprints aligned to your container service delivery strategy:

**Sprint 1** is the viability sprint, focused on developer experience and containerization. This sprint helps your developer and operations teams to create capabilities that deliver your applications or workloads in containers. Sprint 1 answers questions such as:
- What systems are integrated?
- How will your team deploy microservices-based applications?
- How do we secure and scale to meet business needs?

**Sprint 2** focuses on integrating containers into your existing infrastructure, coupled with a secure delivery pipeline in preproduction. This sprint includes deeper design discussions to help ensure all requirements are realized in the subsequent deployment. Preproduction tests are conducted to onboard workloads securely.

**Sprint 3** brings the integrated container pipeline into a subset of your production environment, helping assure what was built in preproduction works as expected in production. Also, application owners and ITOps have the tools, visibility, and governance to start managing containers in your production environment, at scale.

**About services from HPE Pointnext**

Enterprises, service providers, and governments are taking a closer look at how open source and container technologies can help cut costs, enable new revenue streams, and provide competitive advantage. HPE Pointnext delivers HPE experienced open cloud software technologists and consultants to help you drive innovation and achieve the benefits of cloud and open source technologies that enable you to transform your IT environment and your business.

Learn more at [hpe.com/services/cloud](http://hpe.com/services/cloud)