

Comparing the Value of AWS Outposts to Traditional On-Premises Infrastructure

AWS brings the cloud to your facilities with Outposts, a fully managed solution to meet local compute and application demands. The cloud brings major benefits like agility, cost savings, and time to market, but some organizations have workloads that can't be easily moved to the cloud. If there's a need to retain certain workloads and operations on premises, how does running on AWS Outposts compare to traditional on premises infrastructure?

AWS Outposts: A Fully Managed Solution



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Outposts enables the continued migration of your applications and services to the cloud. With Outposts you can take advantage of the same AWS infrastructure, services, tools, and APIs available in the Region to provide a wide range of cloud services within your local environment, as well as providing a platform for legacy systems and applications. Organizations can operate location-sensitive workloads locally and leverage all the benefits of a single seamless view of all applications and resources, across both on premises and cloud.

So how does this approach compare to the traditional methods of sourcing, deploying, operating and supporting the IT resources required to run applications and services within your own facilities?



The reduction in container management spend for TELUS.



The latency reduction experienced by players when Riot Games moved



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Toyota North America had a 3/4 reduction in time patching and updating software for services running on Outposts.



Tipico can send a mobile bet slip to an online sports betting customer in



Traditional hardware or AWS managed?

If you now have the choice between traditional hardware infrastructure or AWS Outposts, how do the two approaches differ? And, what advantages can be gained by choosing Outposts?

As you compare running traditional hardware with AWS Outposts, you will find a number of responsibilities being shifted from in-house teams to AWS.

Traditional hardware



Hardware selection

Engage with several hardware vendors to determine which one meets your needs, including evaluations, testing, benchmarking and final selection. Hardware selection also involves choosing an appropriate infrastructure management software platform to give IT staff the tools to manage the hardware and virtualization of the environment.

AWS Outposts approach

Single vendor – choose from the broadest range of compute instances with many different processor architectures and storage differing options available to match your workload needs.

Evaluate different compute instances and storage options at a moment's notice, enabling rapid selection of the right computing platform to deploy in Outposts.



You are responsible for sourcing, deploying and managing all the software licensing required to run your systems, including operating systems, virtualization and container middleware, databases, AI/ML services, security tools, virus protection, and all of the appropriate management tools, from a number of different vendors. As well as deal with several lengthy and time consuming tasks such as hardware evaluations, managing RFPs and product disposal at the end of its life.

Procurement & software licensing

Customers can procure and manage both their hardware needs and software licenses all from AWS without having to deal with multiple vendors.

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All actions are your responsibility, including designing the system layout, managing and deploying the servers, storage and networking, cabling and labelling, installing operating systems and core management software burn in and testing ahead of being able to deploy applications.

AWS takes full responsibility for the deployment and commissioning of the Outposts systems, so that they are ready for you to run your applications.



Traditional hardware vs AWS Outposts approach

Both approaches require managing changes, updates, or upgrades to the data center facilities to accommodate new platforms or racks. For example, power, cooling, and floorspace. Each option will have its own unique requirements which will need to be accommodated to provide the right capabilities the deployment requires.





Deployment of applications and services

You are responsible for your entire application stack, including core services such as, storage and databases, web and application services, virtualization and container management and supporting other microservices required as part of an application modernization strategy.

You will have to develop your own core elements such as web, database and other services to support your developers as they update and modernize your applications. Relational Database Services (RDS) make it quick and easy to deploy database services without needing to worry about the infrastructure, storage, integrity and backup of the databases used.

Other services such as EKS (Elastic Kubernetes Service) and ECS (Elastic Container Service) come with AWS management, so customers don't have to worry about managing individual stacks.

Security, compliance and support

You are responsible for the entire security posture of your infrastructure and applications, with full responsibility on your own teams to maintain protection of your data, IP and reputation.

Managing and triaging support is your responsibility, with your staff required to manage all support obligations. Including

AWS is vigilant regarding security of the cloud, and provides a cloud architecture designed to protect your information, identities, applications and devices.

AWS operates a shared responsibility model for support, with responsibility for security of the cloud platform, providing foundation security and protection against a range of

liaising with third party infrastructure and service providers.

external threats.



Connectivity

Connectivity to the cloud is not a critical factor for the performance of on-premises infrastructure, although may be important for any services delivered from the cloud to on-premises systems or users.

The right cloud connectivity methods such as VPN or DX brings the same AWS Control Plane running in the Region to your Outpost. A reliable connection with sufficient bandwidth will ensure all the services, tools and security in the cloud are fully operational.



Patching, monitoring and management

All updating of hardware and firmware is your responsibility, along with monitoring the overall health and operation of your environment, including patching operating systems, virtualization and container management, security and other middleware and management tooling. AWS takes responsibility for the management and operation of all hardware and virtualization, patching of firmware and middleware, and of managed services such as database, web and container management services.

On-premises deployments are typically a large capital purchase of a depreciating asset and budgeted for on a 3-4 year cycle. This can tie up capital and limit the resources that can be acquired due to constraints in cashflow.



Financing

Choose between Capex with multiple vendor management or Opex with flexibility to pay All Upfront, Partial Upfront or No Upfront in a single bill accessible from your AWS Billing Dashboard.

Learn more about AWS Outposts

Reach out to your account team or fill out our online form: <u>https://aws.amazon.com/contact-us</u>. Alternatively, go into the AWS Management Console.

Find out more

AWS Outposts pricing

AWS Outposts

1 https://www.youtube.com/watch?v=g9nQXafMo4A

2 https://aws.amazon.com/solutions/case-studies/tipico-outposts-case-study/