On-Demand Data Center™
powered by NODUS Cloud OS

Overview
Adaptive Computing’s On-Demand Data Center™ provides a scalable cloud systems management framework that gives companies the ability to leverage public cloud provider resources, with no lock-in to any major cloud provider.

Powered by the NODUS Cloud OS intelligent cloud systems management technology, the On-Demand Data Center™ is used to spin up temporary or persistent data center infrastructure resources quickly, inexpensively, and on-demand. This enterprise-grade platform can be used to automatically deploy and build clusters in the cloud, automatically run applications on those clusters, and then terminate the cloud resources, assuring that you only pay for what is being used.

The On-Demand Data Center provides several core services including:
- Automated infrastructure provisioning
- Application deployment
- Auto-deploy CI/CD pipelines
- Image pipelines
- Account structures
- Logging
- Monitoring
- Identity and access management
- Scaling
- Cost control by deprovisioning cloud resources when no longer needed

Cloud Bursting
The On-Demand Data Center is highly flexible and customizable. It enables on-premise systems to ‘burst’ workload backlog to an external cloud when resources are not sufficient to accommodate peaks in demand. All required workload resources are automatically deployed as needed. When the workload requirements have been met, the cloud resources are automatically deprovisioned from the cloud provider. This added flexibility enables admins to expand their own cluster and dynamically utilize the scalability of the cloud. The On-Demand Data Center includes all the necessary tools to facilitate ‘bursting’ workloads and applications to the cloud and/or extending on-premise resources. Cloud Bursting can be set up to deploy applications dynamically or on-demand.

Features:
- Any user can set up a temporary or persistent Data Center instantly and then shut it down when the resources are no longer needed.
- AWS, Azure, Google Cloud, Oracle Cloud, and Open Telekom Cloud are preconfigured and built-in to the GUI with deployment-ready access.
- Comprehensive management across the following environments:
  - Virtualized
  - Private Cloud
  - Public Cloud
  - Containers
- You only pay the cloud provider cost for what you use, when you are using it, on an as-required basis.
- Supports all public clouds of any size, as well as private cloud infrastructures.
- Configure template stacks (workflows), run test jobs, run custom jobs, run jobs on any major cloud provider, and view job output from a single interface.
- Enhanced file management and job output.
- Credentials management; admins can set up user accounts to control costs and security.
- Can be used to access specialized resources such as GPUs.
- Effortlessly spin up and spin down on-premise and cloud resources for a hyper-efficient and agile infrastructure strategy.

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Auto-Deploy CI/CD Pipelines
The On-Demand Data Center improves CI/CD by enabling automation at any part of the pipeline and can be enabled quickly to handle a new pipeline with ease. Developers can deploy SDLC toolchain combinations using the On-Demand Data Center framework and deploy different toolchain combinations.

Cost-Effective Automation Testing
The On-Demand Data Center framework allows developers to test on a large variety of high-performance machines and environments saving organizations time and money by not using expensive resources in-house for test environments. When large development teams test, having dedicated resources in continually refreshed cloud environments is a competitive advantage. The On-Demand Data Center shuts down active cloud resources when not in use, preventing escalating and unnecessary cloud costs. When large teams of developers are using cloud resources for testing, this can add up to a significant cost savings.

Infrastructure Provisioning
Deliver Hybrid IT by balancing workloads between on-premise and cloud infrastructures. Automatically deploy and build clusters in the cloud, avoiding an up-front expensive hardware purchase and installation. Use scripted components to automate & reduce manual processes. Take unused capacity offline easily and save on those costs.

Application Portability
Use the On-Demand Data Center to deliver your applications to the cloud, to on-premise resources or to remote locations. Make applications completely portable between on-premise and cloud infrastructures as well as from one cloud to another. The On-Demand Data Center can run without the application owner requiring any knowledge of the cloud itself.

Benefits:
- Reduce your costs by spreading your tech infrastructure across multiple cloud providers and/or on-premise infrastructure based on cost of delivery.
- Optimize productivity by taking advantage of automation.
- Improve management by providing controls for one-off projects with contractors.
- Provide a single point of control for provisioning and deprovisioning infrastructure resources.
- Extend your on-premise resources to the cloud to meet peak demand or eliminate backlog.
- Reduce the costs of allocating temporary resources or making additional hardware purchases.
- Get true scalability and elasticity.
- Control cloud costs by automatically shutting down nodes when not in use.
- Increase the capacity of your on-premise data center; access advanced computing power and virtually unlimited capacity.
- Increase productivity while reducing Cap Ex costs.
- Solve cloud migration challenges.
- Intelligently manage cloud resources so that they can be used cost-effectively and efficiently.