Bright Computing

Bright and Microsoft Azure

Solution Brief

Bright makes it easy to deploy and manage virtual clusters in the Microsoft Azure cloud. We give our customers the ability to easily build a virtual cluster entirely in Azure or to extend an on-premises cluster into Azure for extra capacity.

Cloud computing is a pervasive technological trend that has penetrated nearly every market over the past several years. Cloud computing focusses on providing ubiquitous access to shared resources and leveraging economies of scale to achieve lower variable costs.

Cloud bursting has emerged as a way to scale and provide on-demand capabilities to augment on-premises clusters. Organizations can partition workloads across on-premises and public cloud infrastructures to handle transient peaks in demand that exceed existing capacity, or special projects that require a large amount of resources, only paying for additional resources when they are needed.

But, blending public cloud resources with on-premises clusters can be challenging. That's where Bright comes in. We make it easy to incorporate Microsoft Azure seamlessly as part of your cluster infrastructure.

Key Customer Challenges

Building a dynamic, flexible clustered infrastructure

We are in the era of big compute and big data, which is driving demand for clusters in many organizations. But the workloads running on today's clusters vary widely, as do the demands. The challenge that systems administrators are facing is providing enough capacity to handle peak loads, without breaking the budget by having to buy more hardware that is only needed when loads are heavier.

Providing clusters "on demand" for demanding clientele

Static clusters have long been the standard in data centers. However, today's application developers often need something different. Whether they need to test their application in a different target environment to recreate a customer problem or run their code on a large number of servers to test how it scales, developers need more than a static set of compute resources.

Extending a cluster into the cloud to meet increased demand

No matter how many servers there are in an on-premises cluster, there will always be times when you wish you had more of them. Spinning up virtual servers in Microsoft Azure is a great option, but managing the two sets of servers — on-premises and in the cloud — can be a challenge.

Providing choice for our customers

With the addition of Microsoft Azure, Bright is expanding the options available to customers. Bright customers like to have choices, and Microsoft Azure provides a new compelling alternative when choosing a source for virtual servers in the public cloud.

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The Bright Solution for Azure Cloud Integration

Bright's vision is to make it faster and easier for organizations to build, manage, and use clusters. So we took our customers' challenges to heart and created a solution that lets them get the most out of Microsoft Azure. Our Azure integration includes:

Cluster on demand

Our cluster on demand capability enables you to build an entire cluster in the Microsoft Azure cloud. Bright allocates the compute resources in Microsoft Azure automatically upon request.

Cluster extension

Bright lets you expand your physical cluster into the Microsoft Azure cloud whenever you need extra capacity.

Automated movement of job data

Bright Cluster Manager can move the data your jobs need in and out of Azure automatically.

Automated scaling — up AND down

With Bright, you don't have to worry about when to create and tear down virtual nodes. Bright Cluster Manager automatically scales nodes up and down based on workload.

Key Benefits

Simple deployment of nodes in Azure

After asking a few initial questions, Bright provides a streamlined setup process that configures everything for you automatically. This feature saves you time and reduces the chance of running into configuration errors.

Uniform management across the board

The nodes Bright creates for you in Azure look and feel exactly like the on-premises nodes, from a management and operation perspective. They're provisioned with the same software images, use the same authentication methods, and run the same workload management systems. Managing a cluster that spans physical and virtual nodes is easy.

Scalability

Bright lets you scale your cluster beyond the available physical nodes, automatically and on demand. Once you set it up, Bright will scale your cluster up — and down — to meet variations in workload demand. No more spending money on keeping virtual servers running in the cloud when they're not needed. Bright Cluster Manager will turn them off when they're not in use, and spin them back up again when they are — all without requiring any intervention from you.

Freedom of choice

By making Microsoft Azure part of your cluster management solution, you have the freedom to choose to run your clusters entirely on-premises or expand them to your public cloud provider of choice — Microsoft.

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Windows Azure

Additional Information

brightcomputing.com/bright-cluster-manager
brightcomputing.com/solutions/cluster-on-demand
brightcomputing.com/download-empowering-cloud-utilization-with-cloud-bursting-white-paper

Get Started with Bright and Azure

brightcomputing.com/request-a-demo