Data has become essential to the operation of any business. Putting it to work efficiently is key to meeting the expectations of your customers, the requirements of government regulations, and the challenge of your competition. Big data is generating new value from all your data.

**Big Data Overview**

Big data can seem complex at first, but it can be broken down into a few components. It starts with the data providers on the left. You've always had data in your enterprise. With big data it's just a matter of adding more sources, from public data sets to streaming data from sensors and much more.

Next, we have three interlinked components. You need data management infrastructure to store and process, and govern all that data. You need to be able to integrate it, which means organizing it, experimenting with it, and doing what's needed to get it ready for production use. And you need to be able to run sophisticated analytics on it, to uncover new insights that can change the way you do business.

Finally, the results of this preparation and analysis need to be made available to the data consumers in your organization: the people, applications and services that are responsible for taking action.

**Data Management for Big Data**

Data management is a foundation for big data success. Oracle's two big data management solutions are built around 3 core premises:

- Open: based on widely adopted open source technologies like Apache Spark, Apache Hadoop and the R language, you are never locked in.
- Simple: hiding or automating the complexity maximizes cost savings and reduces time to value
- Secure: correctly setting up and configuring authentication, access controls and auditing keeps you and your data safer
A Fully Managed Solution

A fully managed solution in the cloud is simplest to deploy and operate, minimizing the need for new skills. No need to worry about the distribution, patching or any other administrative task: it’s all taken care of. Based on Big Data Cloud Service – Compute Edition, Oracle’s fully managed solution delivers:

» Easy to operate: no need to install, upgrade or administer any software; just configure resources for your usage pattern and the rest is done for you.
» Small initial configuration: initial configurations start with just 2 OCPUs, allowing you to experiment with small setups, scaling when you need to.
» Independent elasticity: compute and storage can be scaled separately, enabling multiple clusters on the same data and providing better isolation for workloads.

Consider a fully managed solution when you want the simplest solution that minimizes the need for new skills and can be tailored closely to your workload and usage patterns.

An Automated Solution

An automated solution provides scripts, patches and updates, but requires you to use them at a time of your choosing. Based on Big Data Cloud Service, Oracle’s automated solution delivers:

» Performance: dedicated hardware, with all the over 500 parameters optimized for that exact configuration, enables a cluster to run predictably fast.
» Security: a tested and proven security configuration offers the best protection possible for all data, as well as all users and applications accessing that data.
» Flexibility: enables consistent, stable versions for production, or the very latest to take advantage of open source innovations.

Consider an automated solution when you have the skills to manage it, when you need the predictable performance of a tuned and dedicated cluster, and when you have specific requirements on versions and patches.

Deploy Where You Need

Oracle’s Big Data cloud solutions can be deployed in the Oracle Public Cloud as well as your own data center as part of the Cloud at Customer program.

The fully managed solution, based on Big Data Cloud Service – Compute Edition, is supported on Oracle Cloud Machine. The automated solution, based on Big Data Cloud Service, is supported on Big Data Cloud Machine. Both can be deployed in your datacenter and integrated with the rest of your on-premises and public cloud setup.