Lesson 2 – HDFS and YARN

Life is found in layers

WHOLENESS OF THE LESSON

HDFS is the bottom most layer in the Hadoop Eco system which is used for storing big data. YARN is a cluster management system added on top of HDFS which adds more flexibility to Hadoop. Science & Technology of Consciousness: Physical science informs us that the whole of creation is built of layers of energy, one inside the other. The subtlest is at the innermost stratum of creation and builds up around itself different qualities, becoming bigger and bigger.

MAIN POINTS

1. YARN effectively takes care of cluster resource management and job scheduling. Its architecture consists of the core processes of Resource Manager, Node manager (which provides containers) and Application Master. Science & Technology of Consciousness: Rishi (knower), Devata (knowing), and Chhandas (known) are the basic elements of the framework of nature.

2. With Hadoop 2, a Hadoop cluster can now run interactive querying and streaming data applications simultaneously with MapReduce batch jobs. Science & Technology of Consciousness: When acting in accord with natural law, all actions are spontaneously optimized to promote maximum evolution.

3. Horizontal scaling capability is added in Hadoop 2 with HDFS Federation in which you can have multiple NameNodes taking care of multiple namespaces in a single Hadoop cluster. NameNodes do share the Block Pool which is the storage of all the DataNodes. Science & Technology of Consciousness: Unified field theory states that the universe is only superficially diverse but fundamentally unified at its source, and that underlying all matter and energy we find a self-organizing field of intelligence.

UNITY CHART

CONNECTING THE PARTS OF KNOWLEDGE WITH THE WHOLENESS OF KNOWLEDGE:

HDFS as the Data Storage and YARN as cluster resource management Layers

1. Hadoop 1 had very limited features and many drawbacks.
2. All the drawbacks of Hadoop 1 are taken care of in the Hadoop 2 version release so that there will not be any SPOF problem (taken care by HA) and effective cluster resource management (YARN) added removing the "only MapReduce" limitation of Hadoop.

3. Transcendental consciousness: is the experience of the simplest and most abstract state of awareness which underlies all states of greater excitation.

4. <u>Impulses within the Transcendental Field</u>: Nature accomplishes what it needs by having its impulses in the transcendental field be as efficient as possible.
5. <u>Wholeness moving within itself</u>: In unity consciousness one experiences everything as excitations of pure consciousness that underlies and connects all diversity.