Demo of configuring and running MySQL Cluster & then destroying it!

Andrew Morgan

Oracle

UK

Schlüsselworte

MySQL, MySQL Cluster, Real-Time, High Availability

Einleitung

MySQL Cluster is a scalable, real-time, ACID-compliant transactional database, combining 99.999% availability with the low TCO of open source. Designed around a distributed, multi-master architecture with no single point of failure, MySQL Cluster scales horizontally on commodity hardware with auto-sharding to serve read and write intensive workloads, accessed via SQL and NoSQL interfaces.

Originally designed as an embedded telecoms database for in-network applications demanding carrier-grade availability and real-time performance, MySQL Cluster has been rapidly enhanced with new feature sets that extend use cases into web, mobile and enterprise applications deployed on-premise or in the cloud, including:

- High volume OLTP
- Real time analytics
- Ecommerce, inventory management, shopping carts, payment processing, fulfillment tracking, etc.
- Online Gaming
- Financial trading with fraud detection
- Mobile and micro-payments
- Session management & caching
- Feed streaming, analysis and recommendations
- Content management and delivery
- Communications and presence services
- Subscriber / user profile management and entitlements

The purpose of this paper is to explore how simple it now is to get a well-configured Cluster up and running and then how well it copes with the failure of any components.

Ihre Überschrift

MySQL Cluster Auto-Installer

A major priority for this release is to make it much easier and faster to provision a cluster that is well tuned for your application and environment; we want you to focus on exploiting the benefits of MySQL Cluster in your application rather than on figuring out how to install, configure and start the database. The MySQL Cluster Auto-Installer provides a browser-

based GUI which steps you through creating a Cluster tailored to your requirements. For a really good view of how the tool works, a [tutorial video](#) is available[1].

Figure 1 illustrates the steps that the auto-installer walks you through:

- Specify the anticipated workload type (for example – real-time application which is write-intensive) together with the list of hosts the Cluster will run on
- The installer will then optionally connect with each of the hosts (dependent on SSH access) to discover what resources are available (operating system, memory & CPU cores)
- A topology (which nodes/processes should form the Cluster and which hosts they should run on) is then proposed which the user may then accept or modify
- Based on all of the provided and discovered information, configuration settings are proposed – again the user can accept or modify these

Figure 1 MySQL Cluster Auto-Installer

- Finally the installer will optionally (dependent on SSH access) deploy and start the Cluster and show the status of the nodes as the Cluster comes into service. If SSH is not available then the Cluster can be configured and started manually using the commands that the auto-installer displays
- The MySQL Quick Start Guides for [Linux](#)[2], [Solaris](#)[3] & [Windows](#)[4] step through using the MySQL Cluster Auto-Installer in detail – this paper presents two screen shots in order to provide an impression of how simple it is to use.

Figure 2 illustrates the page where you specify the list of servers that will form part of the cluster. You also get to specify what "type" of cluster you want using drop-down menus; if you're experimenting for the first time then it's probably safest to stick with "Simple testing" but for a production system you'd want to specify the application type and query profile, i.e. write-intensive.

 Figure 3 shows the final stage in which the auto-installer is starting up the processes on the remote hosts – you can monitor the traffic-lights showing the status of each of node to view the Cluster going into service.

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[1] http://www.clusterdb.com/mysql-cluster/mysql-cluster-7-3-auto-installer/
[2] http://downloads.mysql.com/tutorials/cluster/mysql_wp_cluster_quickstart_linux.pdf
[3] http://downloads.mysql.com/tutorials/cluster/mysql_wp_cluster_quickstart_solaris.pdf
[4] http://downloads.mysql.com/tutorials/cluster/mysql_wp_cluster_quickstart_windows.pdf

Figure 2 Specify hosts and application type

Figure 3 Deploy the Cluster

Kontaktadresse:
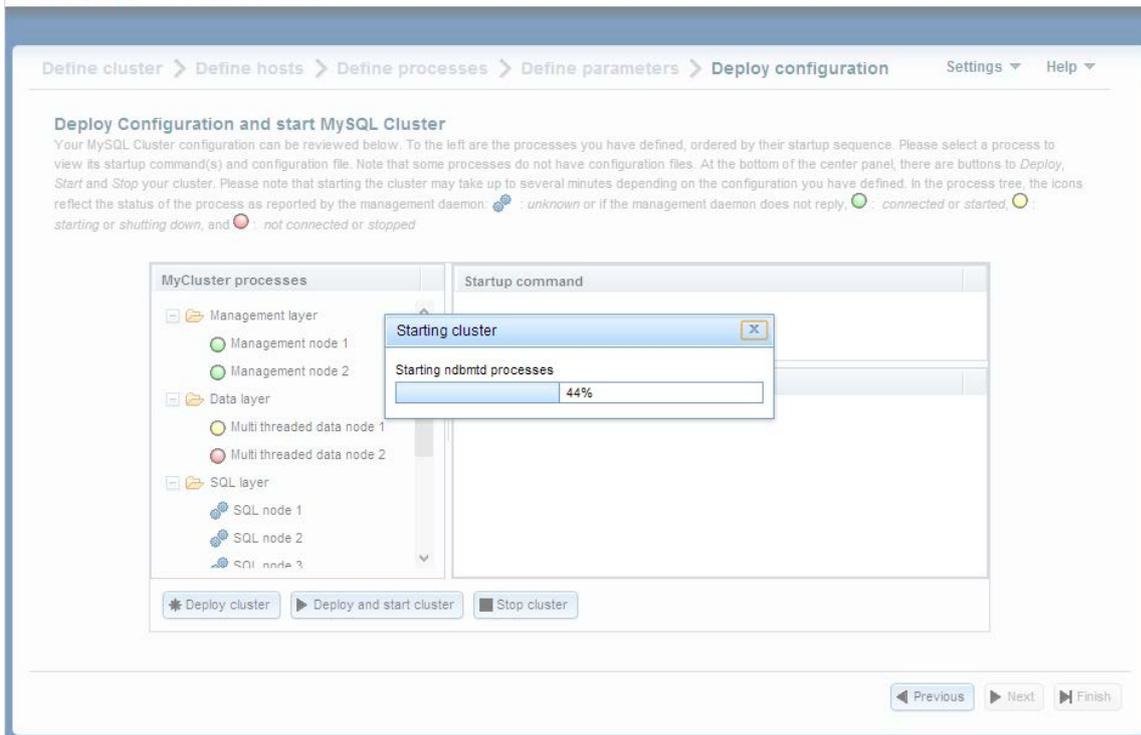
Andrew Morgan

Oracle

E-Mail   andrew.morgan@oracle.com

Internet: www.clusterdb.com

                @clusterdb.com

                @andrewmorgan