MIMOS Text Analytics Accelerator (Mi-AccelMorphe)

The ever-increasing quantity of data generates enormous computational challenges in comparing and detecting matches in textual content. MIMOS Mi-AccelMorphe text analytics accelerator offers parallelised computatation with high-speed data processing on a heterogeneous platform.

Overview

MIMOS Mi-AccelMorphe is a text analytics accelerator tool designed for parallel data processing to compute record duplication and detect the similarity/dissimilarity of text/string data on an optimised heterogeneous platform. It enables high-speed text analytics operations by utilising a heterogeneous hardware acceleration platform that supports both Windows and Linux.

Features

Mi-AccelMorphe comprises the following features:

- **Robust Text Mining Services**

    A service configurator framework provides optimum communication connectivity to data sources while allowing for scalability through an expandable parallel task scheduler.

- **Accelerated Processing Algorithms**

    Mi-AccelMorphe rapidly processes and analyses incoming datasets by identifying matches on the same dataset and record linkages on different datasets such as complete, approximate, numeric and date matches and word similarity. It leverages on accelerated multi-core central processing unit (CPU) and graphics processing unit (GPU) algorithms.

- **Data Scrambling**

    This feature ensures in-depth data privacy by performing data encryption and decryption of the processed datasets.

- **Scalable Heterogeneous Framework**

    A scalable and configurable heterogeneous framework enables users to customise and extend functionalities via service plug-in application programming interfaces (APIs).

Technology Benefits

The main impacts of Mi-AccelMorphe are:

- **Ultra-Speed Parallel Data Computation**

    Mi-AccelMorphe enables compute-intensive text/string operations that complete faster than CPU-only applications. It is optimised for multi-core CPU and many-core general-purpose GPU (GPGPU) for parallel algorithmic computation.

- **Transparent Heterogeneous Hardware Support**

    Mi-AccelMorphe is a high-performance tool designed to maximise productivity without the hassle of developing complicated low-level code. It is also processor agnostic and can run across different hardware platforms with ultra-speed processing capabilities while guaranteeing data reliability on Windows and Linux.

Technology Summary

Mi-AccelMorphe

A text analytics accelerator tool for parallel data processing to compute record duplication and detect the similarity/dissimilarity of text/string.
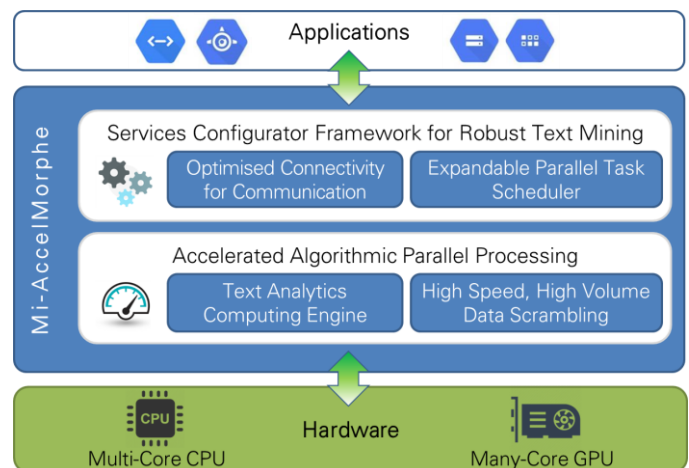
Industries: Enterprise, Government

Features

Mi-AccelMorphe addresses high volume data processing challenges through:
- Robust text mining services
- Accelerated processing algorithms
- Data scrambling
- Scalable heterogeneous framework

Technology Benefits
- Ultra-speed parallel data computation
- Transparent heterogeneous hardware support

MIMOS Mi-AccelMorphe system overview

System Requirements

Mi-AccelMorphe	
Minimum Hardware Requirements	
Processor	Quad-Core Processor 3.0GHz
Memory	16GB RAM
Disk Storage	250GB HDD
GPU	NVIDIA® Tesla® Series GPU Card running in TCC mode (one unit; NOT used for display purpose)
Minimum Software Requirements	
Operating System	Microsoft® Windows® Server 2012 R2 (64-bit) Microsoft® Windows® 7 Professional (64-bit) Linux® Ubuntu 14.04 LTS (64-bit) Linux® CentOS 6.5 (64-bit)
GPU	NVIDIA® CUDA® 7.0 with compatible display drivers
	NVIDIA® CUDA® Toolkit
	NVIDIA® GPU Computing SDK
	NVIDIA® NSight™
Database	MySQL PostgreSQL

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