

usable data set may function as a data feeder for the neural network base to calculate and/or otherwise interact with.

[0038] In various exemplary embodiments, feeding of a data point may be performed by the neural network iteratively requesting to process the next data point in the usable data set.

[0039] Data points, according to many exemplary embodiments, may include but are not limited to performance data and historical data that the neural network has access to as part of its useable data set.

[0040] According to various exemplary embodiments, a library may comprise hundreds of thousands of autonomous data structures. Decisions to allocate resources to the autonomous data structures may be based on their historical performance in particular conditions, so maintaining up to date information on the library is accomplished by the exemplary systems and methods described and illustrated herein.

[0041] Further exemplary embodiments include an Omni Virtual Machine Management Interface, which is an all-in-one desktop application that controls the ordering of CCIs (Cloud Computing Instances) and serves as the manager these CCI's to distribute processing tasks to each machine. By launching as many cloud instances as needed to accomplish the task of testing all of the autonomous data structures provides the real time determination of the best performing autonomous data structures and/or autonomous data cluster structures.

[0042] The fusion server 105, according to various exemplary embodiments and as described herein, is where quantification tokenized data cluster structures react to real time actual conditions. According to various exemplary embodiments, a feedback signaling loop from the secure intelligent agent 103 transmits to the fusion server 105 adjusted activation signals corresponding to the respective quantification tokenized data cluster structures. The fusion server 105 also transmits the

quantification tokenized data cluster structures with corresponding activation signals (as may be adjusted) to the activity server 107. The secure intelligent agent 103 determines the actual performance metric(s) of the quantification data cluster structures on the activity server 107 (as accessed by the secure intelligent agent 103 from the fusion server 105) and compares it to the expected performance metric(s).

[0043] According to further exemplary embodiments, one or more optional data transfer corridors, such as optional data transfer corridors 106A-106I, may be installed at certain locations in the intelligent networked architecture. The optional data transfer corridors are hardware-based secure, high speed data transfer corridors, each having specialized processors and switches. The optional data transfer corridors facilitate the unilateral or bilateral transfer of massive amounts of data especially in those situations where the extremely quick transfer of massive amounts of data is required.

[0044] The activity server 107, according to exemplary embodiments, is a third party server with real time activity influenced by numerous external agents, factors and conditions. The activity server 107 receives secure instructions from the fusion server 105. In some exemplary embodiments, the activity server 107 comprises real time activities of one or more sports teams, companies, markets, power grids, exchanges, firms or associations.

[0045] FIG. 2 is a diagram of an exemplary method 200 for secure intelligent networked architecture with dynamic feedback. According to various exemplary embodiments, an autonomous data structure generates an electrical current or other type of signal in response to a condition. The electrical current or other type of signal may generate a measurable action. For example, an autonomous data structure may comprise IF X, then Y, where X is the condition and Y is the response to the condition. Other autonomous data structures may comprise multiple conditions and/or responses. Conditions may include any of time, activity, weather, sports

[0049] At step 202, the Netezza 101 transmits the data cluster structures to the secure GPU 102 (FIG. 1) to react to historical conditions and establish performance metrics. For example, a historical condition could be the average daily wind speed for a particular region over the course of the last several years. A data cluster structure may comprise autonomous data structures grouped together based on responding well (e.g. correctly predicting the average daily temperature of the following day for a particular region based upon the average daily wind speed for the previous two weeks).

[0050] The secure GPU 102, according to exemplary embodiments, is a specialized electronic circuit designed to rapidly manipulate and alter memory to accelerate the creation of images in a frame buffer intended for output to a display. The processes performed by the secure GPU 102 may include:

[0051] Motion compensation (mocomp);

[0052] Inverse discrete cosine transform (iDCT);

[0053] Inverse telecine 3:2 and 2:2 pull-down correction;

[0054] Inverse modified discrete cosine transform (iMDCT);

[0055] In-loop deblocking filter;

[0056] Intra-frame prediction;

[0057] Inverse quantization (IQ);

[0058] Variable-length decoding (VLD) or slice-level acceleration;

[0059] Spatial-temporal deinterlacing and automatic interlace/progressive source detection; and

[0060] Bitstream processing (Context-adaptive variable-length coding/Context-adaptive binary arithmetic coding) and perfect pixel positioning.

[0061] During step 202, performance metrics are established to quantify the measurable actions undertaken by the one or more data cluster structures in response to the historical conditions. For example, with respect to the data cluster

actual conditions. Performance metrics are established to quantify the measurable actions undertaken by the quantification tokenized data cluster structures in response to the actual conditions.

[0070] For example, referring to step 208, the Netezza 101 may transmit the top ten quantification tokenized data cluster structures (as adjusted) to the fusion server 105, where they will react to real time actual conditions for a particular region in order to predict future average daily temperatures for that particular region.

[0071] At step 210, the secure intelligent agent 103 adjusts the activation signals of the quantification tokenized data cluster structures on the fusion server 105.

According to various exemplary embodiments, a feedback signaling loop from the secure intelligent agent 103 transmits to the fusion server 105 adjusted activation signals corresponding to the respective quantification tokenized data cluster structures. For example, this step may be performed in a fashion similar to that performed at step 208.

[0072] At step 211, the fusion server 105 transmits the quantification tokenized data cluster structures with corresponding activation signals (as may be adjusted) to the activity server 107 (FIG. 1). The activity server 107, according to exemplary embodiments, is a third party server with real time activity influenced by numerous external agents, factors and conditions. In some exemplary embodiments, the activity server 107 comprises real time activity of one or more sports teams, companies, markets, exchanges, firms or associations.

[0073] For example, the fusion server 105 may transmit the quantification tokenized data cluster structures (as adjusted at step 210) for predicting future average daily temperatures for a particular region to the activity server 107. At the activity server 107, the quantification tokenized data cluster structures will react to real time actual current conditions for the particular region in order to predict future average daily temperatures. For example, today a quantification tokenized data