

## IDENTIFICATION OF VIRTUAL COMPUTING INSTANCE ISSUES

### BACKGROUND

Computing devices have increased the efficiency of many business operations. As technology improves, the functionality and efficiency of computing devices may be extended or improved. Technical advances in computing devices, however, may also result in increased complexity in the operation or maintenance of the computing devices. One result of increased complexity may be an increase in the difficulty of trouble-shooting and correcting computing device operations in the event of a malfunction or undesired operation.

Adding or removing hardware or software components to a computing system may have an effect on performance or operation of existing hardware or software components. This may be applicable for physical computing devices or virtual computing instances. In some examples, the effect on performance or operation may be negative. Additionally, configuration changes for systems, misconfiguration of systems, as well as data corruption, user error and other factors may negatively affect performance or operation of computing systems.

Traditionally, users of computing systems may contact a technician, a customer service center or the like to seek assistance in fixing problems or otherwise resolving system operation issues. However, communicating issues about the computing system to a technician may be difficult for any number of reasons. For example, the user may have difficulty adequately expressing problematic symptoms, the user may be unaware of what the problem is, the technician may be typically unable to personally inspect the system, the technician be unable to accurately diagnose the problem without additional information and so forth.

### BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a schematic overview of an example system for providing an operating information report in accordance with an example of the present technology.

FIG. 2A is a schematic diagram of an example virtual computing instance diagnostic system, including a recovery virtual computing instance, in accordance with an example of the present technology.

FIG. 2B is a network diagram of an example distributed computing system in accordance with an example of the present technology.

FIG. 3 is a block diagram of a system for identifying virtual computing instance issues in accordance with an example of the present technology.

FIG. 4 is a flow diagram of a method for identifying a cause and a solution to flagged issues for a virtual computing instance in accordance with an example of the present technology.

FIG. 5 is flow diagram of a method for identifying potential virtual computing instance issues in accordance with an example of the present technology.

FIG. 6 is a flow diagram of a method for generating a virtual computing instance operating information report and receiving a processed result of the operating information report in accordance with an example of the present technology.

FIG. 7 is a block diagram of a system for identifying virtual computing instance issues in accordance with an example of the present technology.

## DETAILED DESCRIPTION

The present technology may be used to identify virtual computing instance issues. For example, an operating information report from a virtual computing instance may be parsed to obtain a diagnostic result. The diagnostic result may be compared against a data store of known computing instance issues to determine whether there is a potential issue for the virtual computing instance. Potential issues may be flagged when identified and these potential issues may be provided for display.

In a more detailed example, the operating information report may be received at a storage location or a virtualized storage service from a virtual computing instance. The operating information report may be the result of a request from a user of the virtual computing instance to create the operating information report or the operating information report may be created automatically by the virtual computing instance in response to an event or according to a schedule. A management server may parse the operating information report to obtain a diagnostic result. For example, the management server may perform a machine driven analysis of a string of words, numbers, symbols, values, etc. in the operating information report into its constituents, resulting in a parse tree showing a syntactic relation of the constituents to one other, which may also contain semantic information, monitoring data, virtual computing instance statistics, and other information. The diagnostic result may be compared against the issues data store, which may contain known virtual computing instance issues, to determine whether there is an existing issue for the virtual computing instance. The issues data store or a different data store may include diagnostic scripts, analysis tools or other data for identifying existing issues. When issues are identified for the virtual computing instance, these issues may be flagged. A user may be notified of the issues. In one example, the notification may further include information relating to a cause of the flagged existing issue and a suggested or possible solution to resolve the flagged potential issue.

FIG. 1 is a schematic overview of a system for identifying virtual computing instance issues. The system may be implemented in any of a variety of configurations. The example in FIG. 1 is for illustration purposes and is not intended to be limiting of potential configurations of systems. The system may be implemented using a virtualized computing platform. A user may operate one or more virtual computing instances **125** to execute an operating system and computing applications. A user may create, launch, and terminate virtual computing instances **125** as desired. The user may have some control over the geographical location of virtual computing instances **125** to optimize latency and provide high levels of redundancy.

The user may access and manage the one or more virtual computing instances **125** over a network connection, such as a connection through the Internet **120**, for example. The user may perform various operations on the virtual computing instance(s) **125** such as adding, updating, modifying, deleting or other otherwise maintaining software or services on the virtual computing instance **125**. These operations may be performed by the user from a user device **110**.

The virtual computing instance **125** may be part of the virtualization computing platform, which may include a virtual distributed computing system with a virtualization management layer **135** executing on a hardware layer **140**. The hardware layer **140** may include a plurality of physical computers, servers or processing nodes. In this way, the virtualization management layer **135** may execute across the plural-