

WHAT IS CLAIMED IS:

1. A system for remote process execution comprising:

one or more computer processors;

at least one computer memory accessible by at least one of the one or more computer processors; and

a remote execution management component comprising an executable software module executed by the one or more computer processors, wherein the remote execution management component is operable to:

determine a remote process configuration for a software process instance, wherein the remote process configuration identifies at least one sub-process of the software process instance for remote operation;

provide process data associated with the at least one sub-process of the software process instance to a network computing provider, the network computing provider instantiating a virtual machine configured to execute an initialized software process instance operable for executing all sub-processes associated with the software process instance, wherein the initialized software process instance comprises a copy of the software process instance, and wherein the process data at least identifies at least one of data associated with the at least one sub-process of the software process instance and a plurality of instructions associated with the at least one sub-process of the software process instance;

obtain one or more processing results from the network computing provider, the one or more processing results associated with the execution of one or more of the plurality of instructions at the network computing provider; and

process the obtained one or more processing results in accordance with the software process instance.

2. The system of Claim 1, wherein the remote process configuration identifies a communications protocol for exchange of data with the network computing and storage component.

3. The system of Claim 1, wherein the client computing device provides process data to the network computing provider and obtains one or more processing results from the network computing provider over a network connection.

4. The system of Claim 1, wherein the at least one sub-process comprises a first sub-process and a second sub-process.

5. The system of Claim 4, wherein each of the first sub-process and the second sub-process are executable both locally and remotely.

6. The system of Claims 4 or 5, wherein the remote execution management component is further operable to determine a remote process configuration for an instance of the software process at run time of the software process instance based at least partly on a previously implemented remote process configuration, wherein the remote process configuration identifies the first sub-process of the software process instance for remote operation and the second sub-process of the software process instance for local operation.

7. The system of Claim 1, wherein the process data includes a set of data associated with the software process instance.

8. The system of Claim 1, wherein the remote execution management component is further operable to determine a remote process configuration for a software process instance based at least in part on software process execution data.

9. The system of Claim 8, wherein the remote execution management component is further operable to identify a sub-process of the software process instance for remote execution at the network computing provider based on the software process execution data.

10. The system of Claim 8, wherein the remote execution management component is further operable to associate a communications protocol with a sub-process of the software process instance based on the software process execution data.

11. The system of Claim 1, wherein the remote process configuration is based on information obtained from the network computing provider.

12. A computer-implemented method for remote process execution comprising:

initializing a software process instance;

determining a remote process configuration for the software process instance, wherein the remote process configuration identifies at least one sub-process of the software process instance;

providing process data to a network computing provider, the network computing provider instantiating a virtual machine configured to execute an initialized software process instance operable for executing all sub-processes of the software process instance, wherein the initialized software process instance comprises a copy of the software process instance, and wherein the process data identifies at least one of data associated with the at least one sub-process and a plurality of executable device instructions associated with the at least one sub-process;

obtaining one or more processing results from the network computing provider, wherein the one or more processing results are associated with execution of one or more of

the plurality of executable device instructions associated with the at least one sub-process;
and

processing the obtained one or more processing results in accordance with the software process instance.

13. The computer-implemented method of Claim 12, wherein the software process instance comprises at least a first sub-process and a second sub-process, each of the first and second sub-processes executable both locally and remotely.

14. The computer-implemented method of Claim 13, further comprising determining a remote process configuration for the software process instance at run time of the software process instance based at least partly on a previously implemented remote process configuration, wherein the remote process configuration identifies the first sub-process of the software process instance for remote operation and the second sub-process of the software process instance for local operation.

15. The computer-implemented method of Claim 12, wherein the client computing device provides process data to the network computing provider and obtains one or more processing results from the network computing provider over a network connection.

~~42~~16. The computer-implemented method of Claim ~~40~~12, wherein the process data includes a set of data associated with the software process instance.

~~43~~17. The computer-implemented method of Claim ~~40~~12 further comprising:
terminating the software process instance at the client computing device;
initializing a second software process instance at the client computing device; and
obtaining one or more processing results from the network computing provider,
wherein the one or more processing results are associated with a last state of the software process instance prior to termination at the client computing device.

~~44~~18. The computer-implemented method of Claim ~~40~~12 further comprising providing second process data to a first computing device for processing, wherein the second process data identifies a second plurality of executable instructions associated with the at least one sub-process to be performed at the first computing device.

~~45~~19. The computer-implemented method of Claim ~~44~~18 further comprising determining whether to provide processing data to the first computing device or the network computing provider based on a computing resource utilization associated with the computing device.