

**What is claimed is:**

1. A method, comprising:
  - receiving, from an agent of a first component executing on a host, first state information regarding the first component and a first boot identifier, the first boot identifier being generated by the host in connection with a startup of an operating system of the host to identify a boot session of the operating system of the host, the first boot identifier being accessible to the agent from the host, the host generating different boot identifiers for different boot sessions;
  - determining whether the first boot identifier matches a second boot identifier associated with second state information regarding a second component; and
  - in response to determining that the first boot identifier matches the second boot identifier:
    - determining the first component and the second component as being co-located on the host, wherein the first component and the second component are containers on the host;
    - associating the first state information of the first component and the second state information of the second component with the host; and
    - generating aggregate state information for the host using the first state information and the second state information associated with the host.
2. The method of claim 1, further comprising:
  - receiving, from the agent, a first component identifier in connection with the first boot identifier, the first component identifier identifying the first component; and

in response to determining that the first boot identifier matches the second boot identifier, associating the first component identifier with the host.

3. The method of claim 2, further comprising:

receiving, from the agent of the first component executing on the host, third state information regarding the first component and a third boot identifier, the third state information and the third boot identifier received subsequent to receiving the first and second boot identifiers; determining whether the first boot identifier of the first component matches with the third boot identifier of the first component; and

in response to determining that the first boot identifier fails to match the third boot identifier:

associate the host with the third boot identifier; and

generate aggregate state information for the host using the first state information, the second state information, and the third state information associated with the host.

4. The method of claim 3, wherein:

receiving the first state information includes receiving the first component identifier;

receiving the third state information includes receiving a second component identifier; and

determining whether the first boot identifier of the first component matches with the third boot identifier of the first component includes comparing the first component identifier and the second component identifier.

5. The method of claim 1, further comprising:

in response to determining that the first boot identifier fails to match the second boot identifier, associating the first state information of the first

component with the host and the second state information of the second component with a second host.

6. The method of claim 1, wherein the first boot identifier includes a random value generated responsive to a boot up of the host.

7. The method of claim 1, wherein the host includes at least one of a server machine, a virtual machine, or a cloud instance.

8. The method of claim 1, wherein the first state information includes information regarding the first component or an application executing in the first component .

9. The method of claim 1, wherein the agent retrieves the first boot identifier from an accessible directory in the host and sends the first boot identifier with the first state information.

10. The method of claim 1, wherein the agent sends a request for the first boot identifier to an operating system of the host and receives the first boot identifier from the operating system in response to the request.

11. The method of claim 1, wherein an operating system of the host associates a component identifier with the first component that is inaccessible to the agent executing on the host.

12. A non-transitory computer readable storage medium having instructions encoded thereon that, when executed by a processor, cause the processor to perform the steps including:

receiving, from an agent of a first component executing on a host, first state information regarding the first component and a first boot identifier,

the first boot identifier being generated by the host in connection with a startup of an operating system of the host to identify a boot session of an operating system of the host, the first boot identifier being accessible to the agent from the host, the host generating different boot identifiers for different boot sessions;

determining whether the first boot identifier matches a second boot identifier associated with second state information regarding a second component; and

in response to determining that the first boot identifier matches the second boot identifier:

determining the first component and the second component as being co-located on the host, wherein the first component and the second component are containers on the host;

associating the first state information of the first component and the second state information of the second component with the host; and

generating aggregate state information for the host using the first state information and the second state information associated with the host.

13. The non-transitory computer readable storage medium of claim 12, further comprising:

receiving, from the agent, a first component identifier in connection with the first boot identifier, the first component identifier identifying the first component; and

in response to determining that the first boot identifier matches the second boot identifier, associating the first component identifier with the host.

14. The non-transitory computer readable storage medium of claim 13, further comprising:

receiving, from the agent of the first component executing on the host, third state information regarding the first component and a third boot identifier, the third state information and the third boot identifier received subsequent to receiving the first and second boot identifiers; determining whether the first boot identifier of the first component matches with the third boot identifier of the first component; and in response to determining that the first boot identifier fails to match the third boot identifier:  
associate the host with the third boot identifier; and  
generate aggregate state information for the host using the first state information, the second state information, and the third state information associated with the host.

15. The non-transitory computer readable storage medium of claim 14, wherein:

receiving the first state information includes receiving the first component identifier;  
receiving the third state information includes receiving a second component identifier; and  
determining whether the first boot identifier of the first component matches with the third boot identifier of the first component includes comparing the first component identifier and the second component identifier.

16. The non-transitory computer readable storage medium of claim 12, further comprising:

in response to determining that the first boot identifier fails to match the second boot identifier, associating the first state information of the first component with the host and the second state information of the second component with a second host.

17. The non-transitory computer readable storage medium of claim 12, wherein the first boot identifier includes a random value generated responsive to a boot up of the host.

18. The non-transitory computer readable storage medium of claim 12, wherein the host includes at least one of a server machine, a virtual machine, or a cloud instance.

19. A system comprising:

a processor configured to:

receive, from an agent of a first component executing on a host, first state information regarding the first component and a first boot identifier, the first boot identifier being generated by the host in connection with a startup of an operating system of the host to identify a boot session of the operating system of the host, the first boot identifier being accessible to the agent from the host, the host generating different boot identifiers for different boot sessions;

determine whether the first boot identifier matches a second boot identifier associated with second state information regarding a second component; and

in response to determining that the first boot identifier matches the second boot identifier:

determine the first component and the second component as being co-located on the host, wherein the first component and the second component are containers on the host;

associate the first state information of the first component and the second state information of the second component with the host; and

generate aggregate state information for the host using the first state information and the second state information associated with the host.