Claims

[Claim 1] An abnormality determination system, comprising:

a performance index acquisition module configured to acquire, based on a utilization situation about a service providing system for providing a predetermined service, a performance index about performance of the predetermined service; and

an abnormality determination module configured to execute, based on the performance index, abnormality determination with regard to an occurrence of abnormality in the service providing system,

wherein the service providing system is a system for providing a plurality of services each of which is the predetermined service,

wherein the performance index acquisition module is configured to acquire the performance index of each of the plurality of services,

wherein the abnormality determination module is configured to execute the abnormality determination of at least one of the plurality of services based on the performance index of each of the plurality of services, wherein the abnormality determination module is configured to execute the abnormality determination for each of the plurality of services that is a target of the abnormality determination, based on a relationship between the performance index of the each of the plurality of services and

an overall performance index of the plurality of services, and wherein the abnormality determination module is configured to determine that an abnormality is occurring in a component common to the plurality of services if the overall performance index satisfies an overall abnormality determination criterion.

[Claim 2] The abnormality determination system according to claim 1, wherein the abnormality determination module is configured to:

determine, for each of the plurality of services, whether the performance index of the each of the plurality of services satisfies an abnormality determination criterion about the abnormality determination; and

execute the abnormality determination based on a type of the performance index that satisfies the abnormality determination criterion.

[Claim 3] The abnormality determination system according to any one of claims 1 to 2,

wherein the performance index acquisition module is configured to acquire, in real time, the performance index of the predetermined service that is in operation, and

wherein the abnormality determination module is configured to execute the abnormality determination in real time based on the performance index acquired in real time.

[Claim 4] The abnormality determination system according to any one of claims 1 to 3, wherein the abnormality determination module is configured to execute the abnormality determination with regard to an occurrence of the abnormality in a future based on the performance index.

[Claim 5] The abnormality determination system according to any one of claims 1 to 4, wherein the abnormality determination module is configured to execute the abnormality determination based on the performance index and a learning model that has learned a relationship between the performance index for training and an occurrence of the abnormality.

[Claim 6] The abnormality determination system according to claim 5,

wherein the service providing system is a system for providing a plurality of services each of which is the predetermined service,

wherein the learning model has learned a relationship between the performance index for training of each of the plurality of services and an occurrence of the abnormality,

wherein the performance index acquisition module is configured to acquire the performance index of each of the plurality of services, and

wherein the abnormality determination module is configured to execute the abnormality determination of at least one of the

plurality of services, based on the performance index of each of the plurality of services and the learning model.

[Claim 7] The abnormality determination system according to any one of claims 1 to 6,

wherein the performance index acquisition module is configured to acquire a transaction index about transactions in an electronic commerce transaction service as the performance index, and

wherein the abnormality determination module is configured to execute the abnormality determination based on the transaction index.

[Claim 8] The abnormality determination system according to any one of claims 1 to 7,

wherein the performance index acquisition module is configured to acquire a membership index about membership of the predetermined service as the performance index, and

wherein the abnormality determination module is configured to execute the abnormality determination based on the membership index.

[Claim 9] An abnormality determination method, comprising:

a performance index acquisition step of acquiring, based on a utilization situation about a service providing system for providing a predetermined service, a performance index about

performance of the predetermined service; and

an abnormality determination step of executing, based on the performance index, abnormality determination with regard to an occurrence of abnormality in the service providing system,

wherein the service providing method is a method for providing a plurality of services each of which is the predetermined service,

wherein the performance index acquisition step is configured to acquire the performance index of each of the plurality of services,

wherein the abnormality determination step is configured to execute the abnormality determination of at least one of the plurality of services based on the performance index of each of the plurality of services, wherein the abnormality determination step is configured to execute the abnormality determination for each of the plurality of services that is a target of the abnormality determination, based on a relationship between the performance index of the each of the plurality of services and an overall performance index of the plurality of services, and wherein the abnormality determination step is configured to determine that an abnormality is occurring in a component common to the plurality of services if the overall performance index satisfies an overall abnormality determination criterion.

[Claim 10] A program for causing a computer to function as:

a performance index acquisition module configured to

acquire, based on a utilization situation about a service providing system for providing a predetermined service, a performance index about performance of the predetermined service; and

an abnormality determination module configured to execute, based on the performance index, abnormality determination with regard to an occurrence of abnormality in the service providing system,

wherein the service providing system is a system for providing a plurality of services each of which is the predetermined service,

wherein the performance index acquisition module is configured to acquire the performance index of each of the plurality of services,

wherein the abnormality determination module is configured to execute the abnormality determination of at least one of the plurality of services based on the performance index of each of the plurality of services, wherein the abnormality determination module is configured to execute the abnormality determination for each of the plurality of services that is a target of the abnormality determination, based on a relationship between the performance index of the each of the plurality of services and an overall performance index of the plurality of services, and wherein the abnormality determination module is configured to determine that an abnormality is occurring in a component common to the plurality of services if the overall performance index

satisfies an overall abnormality determination criterion.