

## **Listing And Comparison Of '628 Patent Challenged Claims**

\*Differences between compared claims **underlined** (except punctuation)

| <b>Claim 1 &amp; Dependents</b> |                                                                                                                                                                                                                                                                                                                                        | <b>Claim 11 &amp; Dependents</b> |                                                                                                                                                                                                                                                                                                                                        |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| [1.1]                           | A computer system comprising:                                                                                                                                                                                                                                                                                                          | [11.1]                           | A computer system comprising:                                                                                                                                                                                                                                                                                                          |
| [1.2]                           | a hardware memory, wherein the computer system is configured to execute software instructions stored on nontransitory machine-readable storage media comprising software instructions that:                                                                                                                                            | [11.2]                           | a hardware memory, wherein the computer system is configured to execute software instructions stored on nontransitory machine-readable storage media comprising software instructions that:                                                                                                                                            |
| [1.3]                           | store in the hardware memory a representation of a first graph, wherein the representation of the first graph comprises representations of a first plurality of nodes corresponding to a first plurality of entities and further comprises representations of a first plurality of edges, wherein the first graph is a directed graph, | [11.3]                           | store in the hardware memory a representation of a first graph, wherein the representation of the first graph comprises representations of a first plurality of nodes corresponding to a first plurality of entities and further comprises representations of a first plurality of edges, wherein the first graph is a directed graph, |
| [1.4]                           | wherein the first plurality of entities comprises a plurality of accounts and a plurality of resources,                                                                                                                                                                                                                                | [11.4]                           | wherein the first plurality of entities comprises a plurality of accounts and a plurality of resources,                                                                                                                                                                                                                                |
| [1.5]                           | wherein each edge of the first plurality of edges corresponds to a respective relationship between a respective pair of entities of the first plurality of entities;                                                                                                                                                                   | [11.5]                           | wherein each edge of the first plurality of edges corresponds to a respective relationship between a respective pair of entities of the first plurality of entities,                                                                                                                                                                   |
|                                 |                                                                                                                                                                                                                                                                                                                                        | [11.6]                           | wherein a representation of a first node of the first plurality of nodes includes information about a first security vulnerability associated                                                                                                                                                                                          |

**MICROSOFT CORP.  
EXHIBIT 1010**

| Claim 1 & Dependents |                                                                                                                                                                                                                                                                                 | Claim 11 & Dependents |                                                                                                                                                                                                                                                                                 |
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|                      |                                                                                                                                                                                                                                                                                 |                       | with a first entity, wherein the first node corresponds to the first entity, and                                                                                                                                                                                                |
|                      |                                                                                                                                                                                                                                                                                 | [11.7]                | wherein the first security vulnerability is identified based on a database of known security vulnerabilities;                                                                                                                                                                   |
| [1.6]                | receive streaming data comprising time-stamped data about events relating to one or more entities of the first plurality of entities;                                                                                                                                           | [11.8]                | receive streaming data comprising time-stamped data about events relating to one or more entities of the first plurality of entities,                                                                                                                                           |
| [1.7]                | based on a first portion of the streaming data, identify a <b><u>first</u></b> entity that does not correspond to any of the first plurality of nodes, wherein the <b><u>first</u></b> entity is not of the first plurality of entities;                                        | [11.9]                | based on a first portion of the streaming data, identify a <b><u>second</u></b> entity that does not correspond to any of the first plurality of nodes, wherein the <b><u>second</u></b> entity is not of the first plurality of entities,                                      |
|                      |                                                                                                                                                                                                                                                                                 | [11.10]               | identify a second security vulnerability associated with the second entity,                                                                                                                                                                                                     |
| [1.8]                | based on a second portion of the streaming data, wherein the second portion is not identical to the first portion, identify a first relationship between a pair of entities of the first plurality of entities that does not correspond to any of the first plurality of edges; | [11.11]               | based on a second portion of the streaming data, wherein the second portion is not identical to the first portion, identify a first relationship between a pair of entities of the first plurality of entities that does not correspond to any of the first plurality of edges, |
| [1.9]                | modify, in the hardware memory, the representation of the first graph to generate a modified representation of the first graph, wherein the modified representation of the first graph comprises a representation of a                                                          | [11.12]               | modify, in the hardware memory, the representation of the first graph to generate a modified representation of the first graph, wherein the modified representation of the first graph comprises a representation of a                                                          |

| Claim 1 & Dependents |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Claim 11 & Dependents |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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|                      | <u>first</u> node corresponding to the <u>first</u> entity and a representation of a first edge corresponding to the first relationship, wherein the <u>first</u> node is not of the first plurality of nodes and the first edge is not of the first plurality of edges;                                                                                                                                                                                                                                                                                                                                                                                                           |                       | <u>second</u> node corresponding to the <u>second</u> entity and a representation of a first edge corresponding to the first relationship, wherein the <u>second</u> node is not of the first plurality of nodes and the first edge is not of the first plurality of edges, <u>and wherein the modified representation of the first graph includes information about the second security vulnerability associated with the second entity,</u>                                                                                                                                                                                                                         |
| [1.10]               | for <u>an anomalous</u> event associated with a node in the modified representation of the first graph, perform a first correlation using the modified representation of the first graph to identify a first plurality of correlated nodes, wherein each of the first plurality of correlated nodes corresponds to a respective event or resource, wherein each respective event or resource is associated with the <u>anomalous</u> event, and wherein each of the first plurality of correlated nodes is connected by a respective edge of a second plurality of edges to the node associated with the <u>anomalous</u> event in the modified representation of the first graph; | [11.13]               | for <u>a first</u> event associated with a node in the modified representation of the first graph, perform a first correlation using the modified representation of the first graph to identify a first plurality of correlated nodes, wherein each of the first plurality of correlated nodes corresponds to a respective event or resource, wherein each respective event or resource is associated with the <u>first</u> event, and wherein each of the first plurality of correlated nodes is connected by a respective edge of a second plurality of edges to the node associated with the <u>first</u> event in the modified representation of the first graph, |
| [1.11]               | for one or more of the first plurality of correlated nodes, perform a further correlation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | [11.14]               | for one or more of the first plurality of correlated nodes, perform a further correlation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

| Claim 1 & Dependents |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Claim 11 & Dependents |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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|                      | using the modified representation of the first graph to identify a second plurality of correlated nodes, wherein each of the second plurality of correlated nodes is connected through a respective edge of a third plurality of edges to the respective node of the first plurality of correlated nodes in the modified representation of the first graph;                                                                                                                                                                                               |                       | using the modified representation of the first graph to identify a second plurality of correlated nodes, wherein each of the second plurality of correlated nodes is connected through a respective edge of a third plurality of edges to the respective node of the first plurality of correlated nodes in the modified representation of the first graph,                                                                                                                                                                                               |
| [1.12]               | generate a representation of a second graph comprising representations of one or more of the first plurality of correlated nodes, representations of one or more of the second plurality of correlated nodes, representations of one or more of the second plurality of edges, and representations of one or more of the third plurality of edges, wherein one or more of the second plurality of edges together with one or more of the third plurality of edges represent one or more event flows that could be involved in a cybersecurity attack; and | [11.15]               | generate a representation of a second graph comprising representations of one or more of the first plurality of correlated nodes, representations of one or more of the second plurality of correlated nodes, representations of one or more of the second plurality of edges, and representations of one or more of the third plurality of edges, wherein one or more of the second plurality of edges together with one or more of the third plurality of edges represent one or more event flows that could be involved in a cybersecurity attack, and |
| [1.13]               | generate a report comprising information associated with the one or more event flows.                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | [11.16]               | generate a report comprising information associated with the one or more event flows.                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 4                    | The computer system of claim 1, wherein the computer system is further configured to execute software instructions stored on nontransitory machine-readable storage media                                                                                                                                                                                                                                                                                                                                                                                 |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

| Claim 1 & Dependents |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Claim 11 & Dependents |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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|                      | comprising software instructions that identify the anomalous event.                                                                                                                                                                                                                                                                                                                                                                                                           |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 13                    | The computer system of claim 11, wherein the further correlation using the modified representation of the first graph further identifies a plurality of respective correlated edges that each involve the respective event or resource.                                                                                                                                                                                                                                    |
|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 14                    | The computer system of claim 11, wherein the first event is an anomalous event.                                                                                                                                                                                                                                                                                                                                                                                            |
| 5                    | The computer system of claim <u>4</u> , wherein the <b><u>anomalous</u></b> event is identified by comparing one or more of the events relating to one or more entities of the first plurality of entities to a pattern of normal event behavior.                                                                                                                                                                                                                             | 15                    | The computer system of claim <u>13</u> , wherein the <b><u>first</u></b> event is identified by comparing one or more of the events relating to one or more entities of the first plurality of entities to a pattern of normal event behavior.                                                                                                                                                                                                                             |
| 6                    | The computer system of claim <u>1</u> , wherein the computer system is further configured to execute software instructions stored on nontransitory machine-readable storage media comprising software instructions that identify a portion of the modified representation of the first graph that matches a known attack pattern, wherein the portion of the modified representation of the first graph comprises the node associated with the <b><u>anomalous</u></b> event. | 17                    | The computer system of claim <u>11</u> , wherein the computer system is further configured to execute software instructions stored on nontransitory machine-readable storage media comprising software instructions that identify a portion of the modified representation of the first graph that matches a known attack pattern, wherein the portion of the modified representation of the first graph comprises the node associated with the <b><u>first</u></b> event. |
| 9                    | The computer system of claim <u>1</u> , wherein at least one entity of the first plurality of entities                                                                                                                                                                                                                                                                                                                                                                        | 20                    | The computer system of claim <u>11</u> , wherein at least one entity of the first plurality of entities                                                                                                                                                                                                                                                                                                                                                                    |

| Claim 1 & Dependents |                                                                                                                                                                                                                                                                                                                            | Claim 11 & Dependents |                                                                                                                                  |
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|                      | is at least one of a user, a place, a device, a resource, an activity, an event, a group, or a service.                                                                                                                                                                                                                    |                       | is at least one of a user, a place, a device, a resource, an activity, an event, a group, or a service.                          |
| 10                   | The computer system of claim 1, wherein at least some of the edges of the second plurality of edges or of the third plurality of edges in the representation of the second graph are assigned a numerical weight that indicates a likelihood of a successful cybersecurity attack gaining access from one node to another. |                       |                                                                                                                                  |
|                      |                                                                                                                                                                                                                                                                                                                            | 22                    | The computer system of claim 11, wherein the node associated with the first event corresponds to a third security vulnerability. |