

What is claimed is:

1. An engineering method for establishing an engineering system in a plant, comprising:

a first step of establishing a virtual engineering system that is a virtual implementation of the engineering system in a virtual system by performing a communication and permitting an access to the virtual system via the Internet via which a client, bases in an engineering company and a third vendor are connected to each other, the virtual system being provided in a first communication system which is provided in the engineering company and connected to the Internet, the communication being performed by using a service which is provided via the Internet and is used by the first communication system; and

a second step of inspecting the virtual engineering system by performing an access to an inspection system via a virtual private network, the access is performed by a second communication system which is provided in the engineering company and is connected to the virtual private network, the inspection system being disposed in the second communication system, and the inspection system inspecting operations of the virtual engineering system which is established in the virtual system,

wherein, in the second step, the engineering method further comprises:

relaying, by a relay system, the access from the client and the third vendor to the inspection system via the virtual private network, the relay system being disposed in the second communication system and configured to access the inspection system;

converting, by the relay system, between a first protocol used by the virtual private network and a second protocol used by the second communication system; and

censoring, by the relay system, an access via the virtual private network to the inspection system.

2. The engineering method according to claim 1, further comprising:

transmitting, by the inspection system, display contents displayed on the inspection system to the relay system;

receiving, by the relay system, the display contents transmitted from the inspection system; and

transmitting, by the relay system, the received display contents to a terminal device via the virtual private network, the terminal device accessing to the inspection system.

3. The engineering method according to claim 1, wherein
the virtual private network is connected to the Internet,
an access from the private network to the service which is provided via the Internet is permitted, and
an access from the Internet to the virtual private network is inhibited.

4. The engineering method according to claim 1, further comprising:
examining an actual engineering system by performing a communication and permitting an access to the actual engineering system via the Internet, the communication being performed by using the service which is provided via the Internet, the service being used by a third communication system which is connected to the Internet, and the third communication system being connected to the actual engineering system established in a plant.

5. An engineering method of establishing an engineering system in a plant, the method comprising:
performing a communication via a first network to a virtual system which is included in a first communication system, a client, bases in an engineering company and a third vendor being connected to each other via the first network, the first communication system being provided in the engineering company, the virtual system being for virtually establishing the engineering system;
permitting a first access to the virtual system via the first network, the first access being from the outside of the virtual system;
establishing an inspection system in a second communication system provided in the engineering company, the inspection system being for inspecting a virtual engineering system which is a virtual implementation of the engineering system, the inspection system being virtually established in the virtual system;
performing a second access to the inspection system via a second network

which is a secured network, the second access being from the outside of the inspection system,

relaying, by a relay system, the second access from the client and the third vendor to the inspection system via the second network, the relay system being disposed in the second communication system and configured to access the inspection system;

converting, by the relay system, between a communication protocol used by the virtual private network and a communication protocol used by the second communication system; and

censoring, by the relay system, a remote access to the inspection system.

6. The engineering method according to claim 5, further comprising:
 - transmitting, by the inspection system, display contents displayed on the inspection system to the relay system;
 - receiving, by the relay system, the display contents transmitted from the inspection system; and
 - transmitting, by the relay system, the received display contents to a first terminal device via the second network, the first terminal device accessing to the inspection system.

7. The engineering method according to claim 6, wherein
 - a firewall, a screen output terminal, and a second terminal device are disposed in the relay system,
 - the screen output terminal makes a copy of the display contents displayed on the inspection system, and
 - the second terminal device accepts a remote access from the first terminal device.

8. The engineering method according to claim 7, further comprising:
 - inhibiting, by the firewall, a direct communication between the first terminal device and the inspection system.

9. The engineering method according to claim 8, further comprising:

permitting, by the firewall, a communication between the first terminal device and the second terminal device; and

permitting, by the firewall, a communication between the second terminal device, the screen output terminal, and the inspection system.

10. The engineering method according to claim 5, wherein
the second network is connected to the first network,
an access from the second network to a service which is provided via the first network is permitted, and
an access from the first network to the second network is inhibited.
11. The engineering method according to claim 10, wherein
the first network is the Internet,
the second network is a virtual private network, and
the service is an internet cloud service which includes at least one of a mail service, an IP telephone service, a file sharing service, an instant messaging service, and a television conference service.
12. The engineering method according to claim 10, further comprising:
communicating, by a third communication system, with an actual engineering system by using the service, the actual engineering system being established in a plant, and the third communication system being connected to the first network and the actual engineering system.
13. The engineering method according to claim 12, further comprising:
examining the actual engineering system by permitting an access to the actual engineering system via the first network.
14. An establishing system for establishing an engineering system in a plant, comprising:
a first communication system configured to be connected to the Internet and equipped with a virtual system which virtually implements the engineering system, the

first communication system establishing a virtual engineering system that is a virtual implementation of the engineering system in the virtual system by performing a communication and permitting an access to the virtual system via the Internet via which a client, bases in an engineering company and a third vendor are connected to each other, the first communication system performing the communication by using a service which is provided via the Internet, the first communication system being provided in the engineering company; and

a second communication system configured to be connected to a virtual private network and equipped with an inspection system which inspects operations of the virtual engineering system which is established in the virtual system, the second communication system inspecting the virtual engineering system by performing an access to the inspection system via the virtual private network, the second communication system being provided in the engineering company,

wherein the second communication system comprises a relay system configured to access the inspection system, and

wherein the relay system is configured to relay the access from the client and the third vendor to the inspection system via the virtual private network, convert between a communication protocol used by the virtual private network and a communication protocol used by the second communication system, and censor a remote access to the inspection system.

15. The establishing system according to claim 14, wherein

the inspection system is configured to transmit display contents displayed on the inspection system to the relay system,

the relay system is configured to receive the display contents transmitted from the inspection system, and

the relay system is configured to transmit the received display contents to a terminal device, which accesses to the inspection system, via the virtual private network.