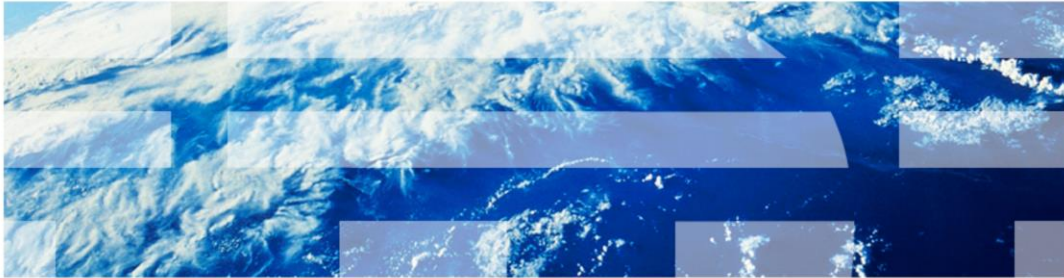


IBM Tivoli Monitoring for Virtual Environments V7.1

Setting up VMware VI agent



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IBM Tivoli Monitoring for Virtual Environments V7.1, setting up VMware VI agent.

Objectives


When you complete this module, you can perform these tasks:

- Provide an overview of the existing VMware VI agent versions
- Configure the VMware VI agent correctly

When you complete this module, you have a clear picture about the existing VMware VI agent versions and you can configure the VMware VI agent correctly.

Product overview

Releases of the VMware VI agent:

- 6.1.0 - 6.1.2
 - 6.2.1 Fix Pack 3
 - New design of the data provider
 - Previous releases of Virtual Center and ESX server no longer supported
 - 6.2.2
 - Tivoli Monitoring V6.2.2 Fix Pack 1 TEMA (Tivoli Enterprise Management Agent) or higher required
 - vCenter 2.5 or vCenter 4.0 or higher
 - ESX server 3.5 or 4.0 or higher
 - Native 64-bit Windows® platforms supported; improved performance over 32-bit compatibility mode
 - 6.2.3
 - Tivoli Monitoring V6.2.2 Fix pack 2 TEMA or higher required
 - Support for vCenter 2.5 U6, 4.0, and 4.1
 - 7.1
 - Improved performance
 - Decreased memory use
 - Compatibility with vSphere 5.0
-  **Suggested**

This slide and the next one give you an overview of the releases of the VMware VI agent.

Software versions before 6.2.1 are not supported and cannot be used.

Version 6.2.2 introduced a native 64-bit agent. Upgrade from a 32-bit to a 64-bit agent is not supported, and only 32-bit to 32-bit and 64-bit to 64-bit options are allowed.

If you plan a new installation of the VMware VI agent, the suggestion is to install V7.1. It is faster and uses less resources than the previous versions. It can monitor all supported versions of ESX server and vCenter or vSphere.

You can upgrade the VMware VI agent to V7.1 from previous versions.

Installation images

Names of the installation images in Passport Advantage®

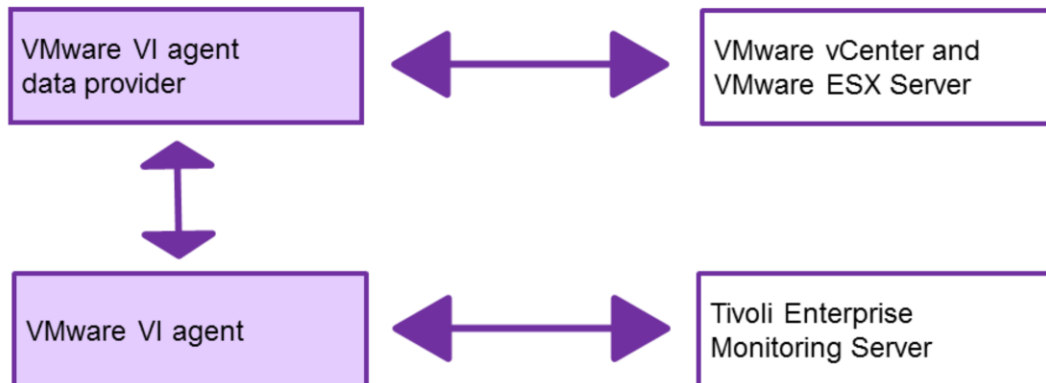
- V7.1
 - IBM Tivoli Monitoring for Virtual Environments 7.1 VMware VI, KVM, NetApp Storage, and NMA Agents and Support Files (TMVE) Windows and Linux® English (CI56TEN)
 - IBM Tivoli Monitoring for Virtual Environments 7.1 Agent Language Pack Multiplatform Multilingual (CI4Q5ML)
- V6.2.3
 - IBM Tivoli Monitoring for Virtual Servers VMware, VI, KVM, and NetApp Storage Agents 6.2.3 Windows Linux English (CZWM3EN)
 - IBM Tivoli Monitoring for Virtual Servers VMware VI, KVM, and NetApp Storage Agents Support Files 6.2.3 Multiplatform English (CZWM5EN)
 - IBM Tivoli Monitoring for Virtual Servers Agent Language Pack V6.2.3 Multiplatform Multilingual (CZV5RML)

Here, you can find the names of the installation images for versions 6.2.3 and 7.1. It is best to search for the part number in Passport Advantage, such as CI56TEN. The language pack is only required if you want to run the agent in a language other than English. If you want to install the application support on a platform which is not Linux or Windows, you must have the Agent Support files image.

VMware VI agent processes

VMware VI agent consists of two parts:

- Data provider (Java-based)
- Agent



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Setting up VMware VI agent

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Mainly, the VMware VI agent consists of two parts: the data provider and the VMware VI agent itself. The data provider is a Java process that starts automatically when you start the VMware VI agent. It connects to the VMware server, collects all data from VMware servers, and returns this data to the VMware VI agent.

The Java process (also named “data collector”) sends the collected data to the VMware VI agent. The agent sends the returned data to the Tivoli Enterprise Monitoring Server. In this way, you can see the monitored data in the Tivoli Enterprise Portal user interface. The agent is used for situations and to collect historical data and pass data from data provider to Tivoli Enterprise Monitoring Server.

Preparation for the configuration

Use these two steps to start the agent:

1. Import SSL certificate:
 - Enabling SSL communication with VMware VI data sources:
 - http://pic.dhe.ibm.com/infocenter/tivihelp/v15r1/topic/com.ibm.tivoli.itmvs.doc_7.1/vmware/enablingssl.html
2. Configure VMware VI agent Data Provider

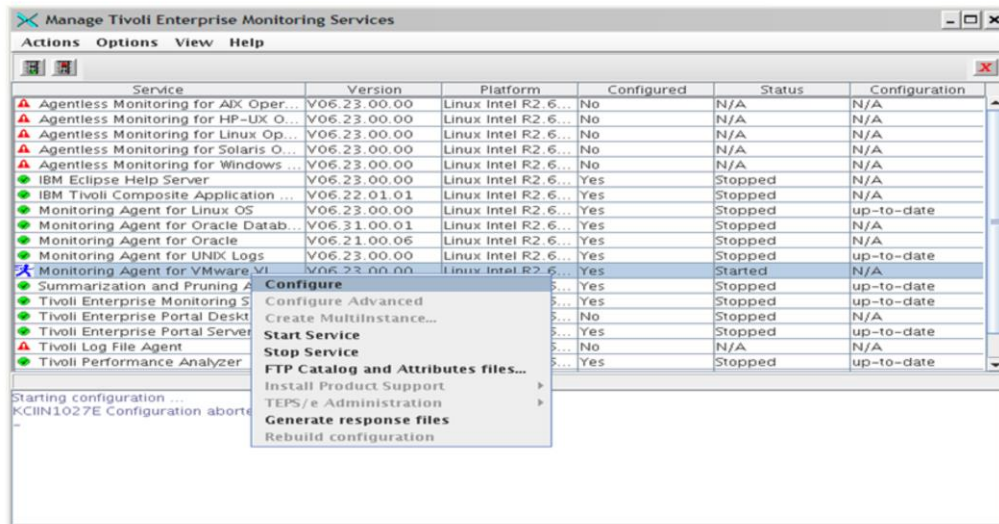
Two key steps are required for a working VMware VI agent.

The first one is related to the SSL certificate. By default, the VMware ESX server or the vCenter accepts only SSL connections. To establish such a connection, you import the SSL certificate, which is on the VMware system. If you go to the address shown on the slide, you can find a description of the command that is used and its options.

The second step is related to the configuration of the data provider. This procedure is described in the next few slides.

Agent configuration on UNIX or Linux (1 of 2)

Start the configuration GUI with the command `itmcmd manage`



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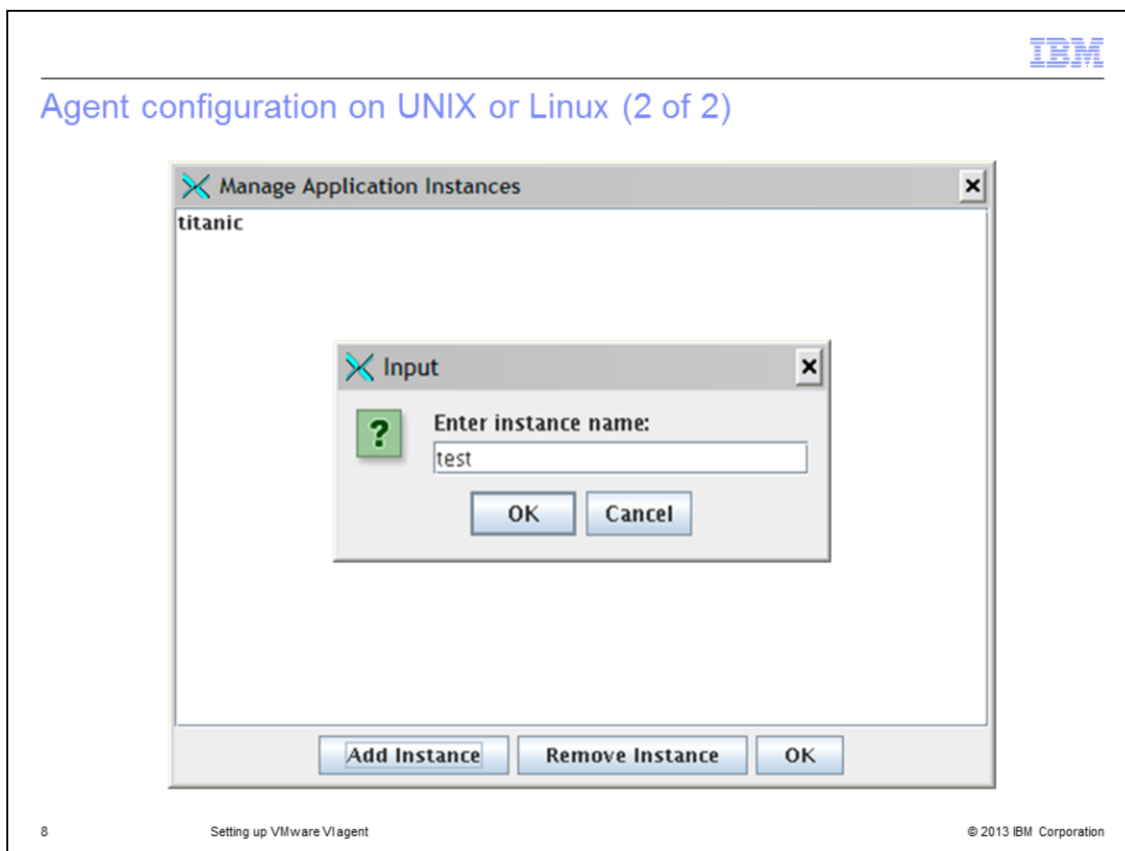
Setting up VMware VI agent

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You must use the graphical user interface (GUI) to configure the agent locally. The method to start this GUI differs on Linux and Windows platforms.

To open the graphical interface on a Linux client, you run the command `itmcmd manage`. In the new window, select and right-click the entry **Monitoring Agent for VMware VI**. In the menu, select the **Configure** option, as shown in the example.

Agent configuration on UNIX or Linux (2 of 2)

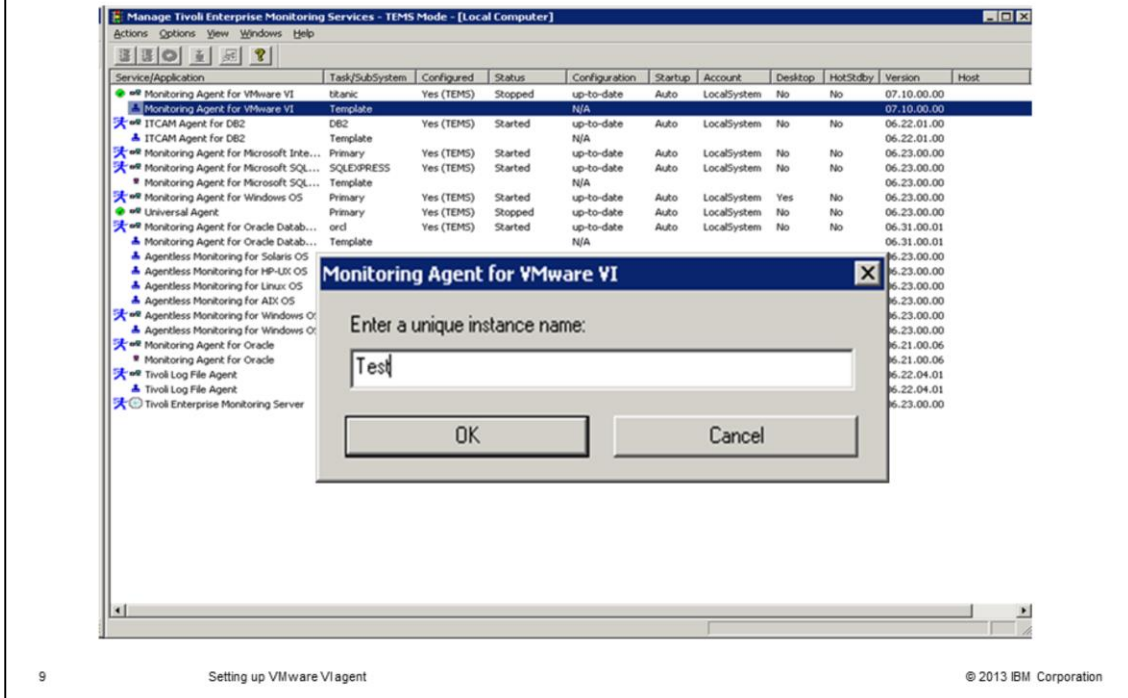


The VMware VI agent can run in multiple instances. For example, you install the agent once, but it can run multiple times with different configurations on the same system. After you click the **Configure** option, you can create an instance or edit one.

To add an instance, click **Add Instance**. To edit an instance, choose the name of the instance you want to modify and click **OK**.

If you clicked **Add Instance**, a new window opens. Enter the name of the new instance; the name is up to you.

Agent configuration on Windows

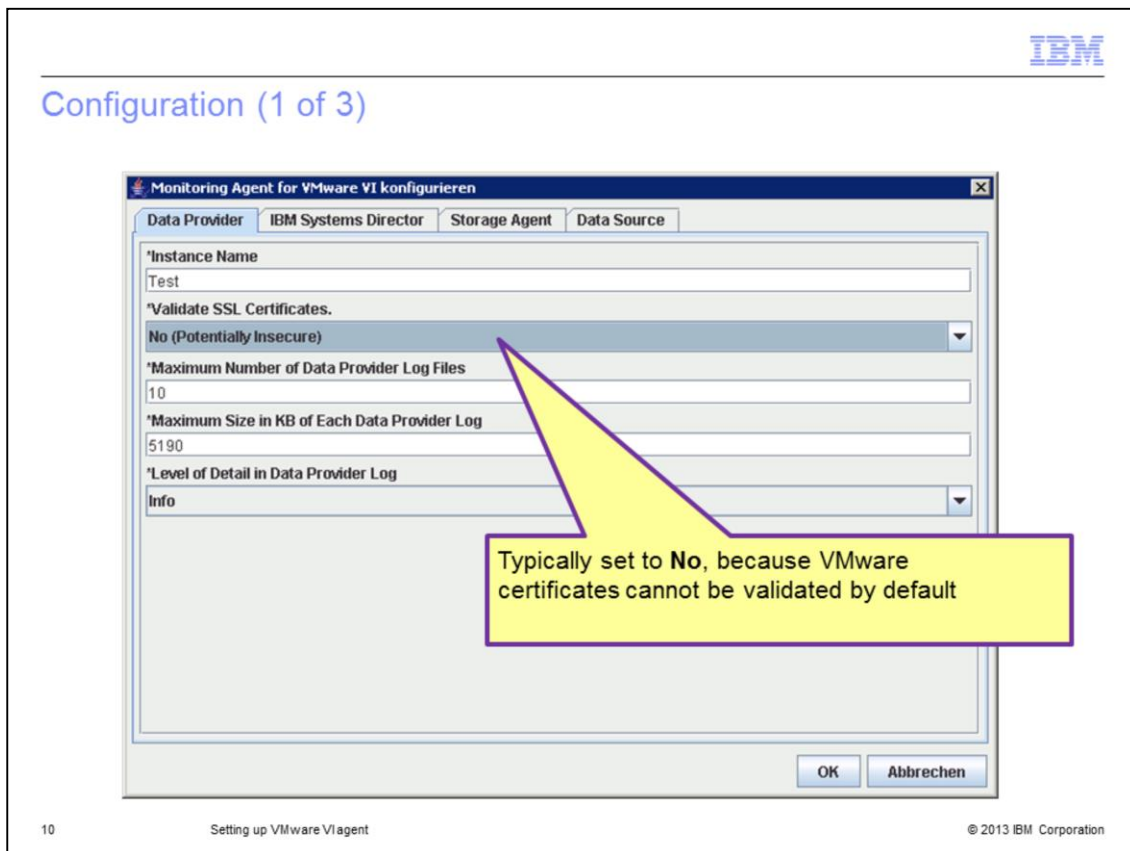


In a Windows system, you can start the configuration process by starting the **Manage Tivoli Monitoring Services**. You can find this interface in the Programs menu after you choose the IBM Tivoli Monitoring group.

If you want to create an instance, double-click the template entry that is named **Monitoring Agent for VMware VI**. You see a window as shown in the slide.

If you want to edit an instance, select and right-click the correct entry, and select the **Reconfigure** option.

Configuration (1 of 3)



The figure in this slide represents the first window of the Data Provider configuration.

Set the field **Validate SSL Certificates** to **No**. By default, the imported SSL certificate is not signed by any trust certificate. In this scenario, the **Data Provider** fails to validate the **SSL certificate** and therefore fails to connect to the VMware client.

The other fields in this tab can be left with the default values. They are used for debugging if a problem occurs.

You can leave the tabs **IBM Systems Director** and **Storage Agent** empty. They are not required for a correct configuration.

Configuration (2 of 3)

The screenshot shows a configuration window titled "Monitoring Agent for VMware VI konfigurieren" with a "Data Source" tab selected. It contains two data source entries. The first entry, "titanic2", has a "Data Source ID" of "titanic2" and a "Data Source Address" of "titanic.mainz.de.ibm.com". The second entry, "titanic3", has a "Data Source ID" of "titanic3" and the same "Data Source Address". Both entries have "Use SSL Connection to Data Source" set to "Yes" and "Data Source User ID" set to "root". The "Data Source Password" and "Confirm Data Source Password" fields are masked with asterisks. There are "Delete" buttons for each entry and "OK" and "Abbrechen" buttons at the bottom.

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Setting up VMware VI agent

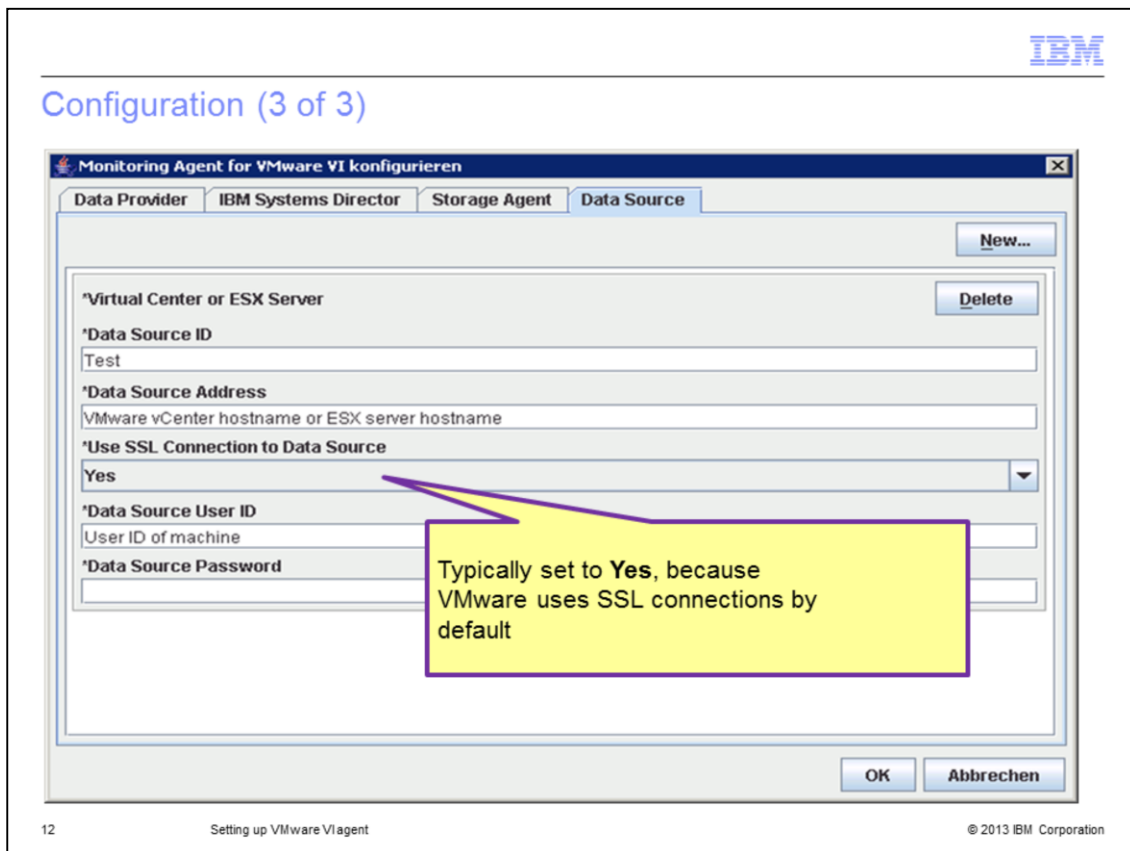
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After you click the **Data Source** tab, you see the window as shown on the slide. Here, you can edit existing data sources, create an entry, or edit existing entries. In this example, there are two defined data sources: titanic2 and titanic3.

A data source represents one monitored ESX server or vCenter. You can monitor multiple ESX servers or vCenters per instance. But, in a typical configuration, you monitor only one ESX server or vCenter per instance.

You can create multiple instances, if you want to monitor several vCenters or ESX servers.

Configuration (3 of 3)



Type the value that is required in the field **Data Source ID**; for instance, the name of the ESX server.

In the **Data Source Address** field, specify the host name of the ESX server or the vCenter. It is best to use the **Fully Qualified Domain Name** with host name and domain. You can use the IP address here; but the host name is better.

The field **Use SSL Connection to Data Source** can be left with the value **Yes**. By default, the ESX server or vCenter accepts only SSL connections.

For **Data Source User ID** and **Data Source Password**, specify an account and password on the ESX server or vCenter. The account requires **System.View** and **System.Read** privileges on all data source objects that are monitored. To enable the **PowerOnVM** and **PowerOffVM** Take Action commands in the monitoring agent, the user ID must also have these privileges: *Virtual Machine: Interaction: Power On* and *Virtual Machine: Interaction: Power Off*.

Summary

Now that you completed this module, you can perform these tasks:

- Provide an overview of the existing VMware VI agent versions
- Configure the VMware VI agent correctly

This module gave you a short overview about the supported version of the VMware VI agent. It listed the names of the installation images that are available on the Passport Advantage website. It also described how to configure the VMware VI agent.

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