

In this training module, you learn how to configure and deploy a machine with a monitoring agent through Tivoli[®] Service Automation Manager V7.2.2.

IBA
Objectives
When you have completed this training module, you can accomplish these tasks:
 Give an overview of IBM Tivoli Service Automation Manager V7.2.2 and IBM Tivoli Monitoring Agent integration
 Configure IBM Tivoli Monitoring Agents for provisioning
Deploy a virtual machine with an IBM Tivoli Monitoring Agent
• View monitoring data in the IBM Tivoli Service Automation Manager V7.2.2 Self-Service User Interface

This training module teaches you how to accomplish virtual machine administrative monitoring tasks with Tivoli Service Automation Manager V7.2.2. After completing the training, you can explain at a high level the integration of IBM Tivoli Service Automation Manager V7.2.2 with the IBM Tivoli Monitoring Agent. The module shows how to configure monitoring agents for provisioning, how to deploy a virtual machine with a monitoring agent, and how to view monitoring data in the IBM Tivoli Service Automation Manager V7.2.2 Self-Service User Interface.

Deploying virtual machines with IBM Tivoli Monitoring Agents

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	IBM
Role of monitoring in IBM Tivoli Service Automation Manager V7.2.2	
 These are the roles of monitoring in IBM Tivoli Service Automation Manager V7.2.2: 	
 Monitoring virtual machine deployment 	
 Providing OS-based usage metrics for these hardware resources: Memory Disk Processor 	
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The role of the IBM Tivoli Monitoring Agent integration with IBM Tivoli Service Automation Manager V7.2.2 is to monitor the resources of deployed machines. Having the IBM Tivoli Monitoring Agent installed provides the capability to gather data related to machine Memory, Disk, and processor usage.

	IB	M
Defining monitoring agent software defi	nitions for provisioning (1 of 3)	
 Allowing IBM Tivoli Service Automation Manager V7.2.2 deployment o Monitoring Agent software definition addition to the IBM Tivoli Provision 	machines with IBM Tivoli Monitoring Agents requires IBM Tivoli ing Manager software catalog.	
 Customizing and creating monitoring agent software definitions require a DCM XML file provided during Tivoli Service Automation Manager in 	the Cloud Pool Administration application. It also requires customizir tallation.	ng
Note: DCM XML files are at /etc/cloud/install/DCM directory on the Se	vice Automation Manager server.	
 Important: If other monitoring agent definitions already exist in the soft match the required customization, they must be either deleted or renar 	are catalog with the name IBM Tivoli Monitoring Agent but do not ed in Tivoli Provisioning Manager.	
To view software definitions click Go To > IT Infrastructure > Software	Catalog > Software Products	
Software Products		
▼ Find: Select Action ▼	52144	
List Software Definition Targets Tasks Workflows Variables Co	omers	
🍳 Advanced Search 🔻 🔚 Save Guery 💌 🛔 Bookmarks		
Software Products : 💙 Filter > 🔍 : 🥒 : 🔶 : 🔶 1 - 1 of 1 🌩		
Software Definition	Version	
monitoring		
IBM Tivoli Monitoring Agent	6.2.2	
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Deploying machines with monitoring agents in Tivoli Service Automation Manager V7.2.2 requires adding a monitoring agent software definition to the software catalog. This addition is accomplished by first customizing the IBM Tivoli Service Automation Manager DCM XML file and then importing it through the **Cloud Pool Administration** application. Be sure that there are no other monitoring agent definitions in the software catalog. Other monitoring agent definitions might create a conflict with the one currently needed. First, log in to the Tivoli Process Automation Engine user interface. Next, open the **Software Products** application. In the **Software Products** application you can verify that there are or no other monitoring definitions in the software catalog.



The DCM XML file targeted for customization depends on the OS environment of the machine. There are different XML file options. One option each for Windows, LINUX, AIX and another option called Multiple Operating Systems.

	IBM
Defining monitoring agent software definitions for provisioning (3 of 3	3)
In the chosen DCM XML files, customize the section below according to your environment:	
 Customize the Tivoli Monitoring agent software definition and define it in Tivoli Provisioni In the section of type software-resource-template, with name = "ITM Installation Temp <os_type>", set the value for the parameters host and port to match the IP address a number of the Tivoli Monitoring server.</os_type> Save the file. 	ing Manager: blate - and port
2. Import the DCM XML file using the Cloud Server Pool Administration application:	
Go To > Service Automation > Configuration > Cloud Server Pool Administration	
Cloud Server Pool Administration > Continguitation > Cloud Cerver 1 Cont Administration	i.
Cloud Server Pool Coveries Cound Server Pool Central Customers	
Q. Advanced Search ▼ III Bookmarks	
List of Cloud Server Pools 🗸 Film > Q 2/3 - 4/3 + 4/0 - 0 +0 - 40 - 40 - 40 - 40 - 40 - 40 -	
Order * Dout Server Pool Name hypervisor Type Hypervisor Manager Resource Pool Name Endeded	
To find records, use the fitter fields above and then press three. For more served ruptions, use the Advanced Search button hadove. To reter a new record, search the text how the bottom.	
Select Records	
portouroexes	1

After identifying the DCM XML file ad-hoc for your OS environment, you need to customize it according to your system definition. For example, in the section **ITM Installation Template**, set the host and port parameters so that they match the IP address and port number of the Tivoli Monitoring Server. Next, customize the DCM XML file and import it by using the **Cloud Server Pool Administration** application.

	IBM
Choosing the monitoring agent	
 Log in to administrative user interface as maxadmin 	
Click Go To -> IT Infrastracture -> Software Catalog -> Software Products	
Filter based on monitoring and select the IBM Tivoli Monitoring Agent software d	efinition
Software Products	
Advanced Search Advanced Search Advanced Search Advanced Search Advanced Search Software Products	
Software Loopers : A titel > C : S : L A : A trial >	
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Bit Tree Minimum Agent for Windows Bit Tree Minimum Agent for All States Bit Tree Minimum Agent	
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The next step is to evaluate the software stack for the IBM Tivoli Monitoring Agent. In order to do this, access the **Software Products** application from the TPAE user interface. Access **Software Products** from the menu by the path **GoTo-> IT Infrastructure-> Software Catalog**. After accessing the **Software Products** application, filter the **Software Definition** by entering **monitoring**. Select the **IBM Tivoli Monitoring Agent** software definition. There are three software installables: IBM Tivoli Monitoring Agent for Linux, IBM Tivoli Monitoring Agent for AIX, and IBM Tivoli Monitoring Agent for Windows.

	IBM
Configuring the variables	
At the top of the software definition click the Variables tab	
 Ensure that you have the exposetotivsam set to one and swType as monagent 	
Software Products	
Find: F	
Software: EM Tivol Montoring Agent Version: (8.2.2	
Variables Filler > 2 2 2 2 2 2 2 2	
swType Erdre system monagers	
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In this slide, the **Variables** tab is displayed. Verify that the variable **expostotivsam** is set to a value of one and that the variable **swType** is set to **monagent**.

					IBM		
Adding the IBM Tivoli Monitoring	Agent	to the	softwa	re stack (1 of 2)			
Click to Go To -> IT Infrastracture -> So	Click to Go To -> IT Infrastracture -> Software Catalog -> Software Stacks						
 To identify your software stack, Select A 	ction ->	Add Sta	ck Entry				
In the Software Definition filter field type	o monito	rina and	nress F n	tor			
		ing and					
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▼ Find: Q ▼ Select Action ▼ 1							
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Add the IBM Tivoli Monitoring Agent to the software stack. From the TPAE StartCenter, select **GoTo**-> **IT Infrastracture** -> **Software Catalog**-> **Software Stacks**.

Click the appropriate software stack from the list. For example, if you want the agent to be deployed into a VMware environment configured with defaults, choose the software stack called **ESXPoolStack**. For PowerVM[®] (if supported), choose the default software stack **ODSDS_PPC_host_stack**. In the **Software Definition** filter field type **monitoring** and press **Enter**.

								IBM
Adding	g the IBM Tivol	i Monitorin	g Agent	t to the soft	ware	stack	(2 of 2)	
 Selection 	ct the IBM Tivoli Mor	nitoring agent	entry and o	click Submit				
 Click 	Yes to confirm savi	ng the change	s					
- 5000	the definition	0 0						
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	Modules 💙 Filter 🚿 🔍 🏒 🏤	🐥 🗇 1 - 1 of 1 🇇				Dewnload	? 🖂	
	Software Definition	Туре	Version	_	Vendor			
	monitoring		1		1			
	IBM Tivoli Monitoring Agent	Software Definition	6.2.2		IBM			
	Configuration Templates						_	
	Selected No	aule. IBM Involi Montoring Agent		9. A A . A				
	ITM Installation Template - Linux	Template Parameters	🕨 Filter 🗧 🔍 🥔	🖞 - 🐨 🧇 - 🖓 - 🖓 - 🖓 -		C& Download	? ; = ·	
	II M Installation Template - Window	Parameter +	Description	Value				
		encryption-key		BMTivolMonitoringEncryptionKey	_			
		host		10.0.107.211				
		install-folder		IBM Tivoli Monitoring				
		install-path		/opt/IBM/ITM				
		install_product		ux				
		log-file		/tmp/itm.log				
		port		1918		/		
		protocol-1		ip.pipe				
		resource-name		IBM Tivoli Enterprise Monitoring Age	int			
						Submit	Cancel	
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Select the IBM Tivoli Monitoring Agent entry and click the Submit button. Once done, save the updated software stack.

Configu	ring the Tivoli N	Ionitoring Server endpoint	
Check th	ne IBM Tivoli Monitori	ing endpoint definition:	
. Go To	-> Integration -> Er	nd Points	
- Filtor b	W PMRDPITM in the	End Point field under the List tab to get the ITM endpoint	
 Evalua 	ate the property REQ	UESTURL, it should contain the value	
http://c	cloudy_itm_1920///cm	s/soap	
		o, coup	
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End Points Uit End Point Advanced Search End Point Filter End Point Particular Particular Select Records		End Points	

Configure the Tivoli Monitoring Agent server endpoint. This is done by accessing the End Points application from the TPAE user interface. Select **Go To** -> **Integration** -> **End Points**.

Filter for PMRDPITM to get the ITM endpoints. What you should do is evaluate the property REQUESTURL with the proper value.

Notice the three backslashes in the URL value for REQUESTURL.

		IBM
Deploy	ring a machine with IBM Tivoli Monitoring Agent (1 of 2)	
 Monitor 	ring agents can be ontionally installed as part of the provisioning process by either	
 Solocti 	ng the Menitering Agent to be Installed ention in the SimpleSPM interface	
- Selecti		
Using s	silent installation which starts automatically after a virtual machine is deployed and co	nfigured
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Use IBM Tivoli Service Automation Manager V7.2.2 to deploy a virtual machine with the IBM Tivoli Monitoring Agent installed. The installation of a monitoring agent is optional and can be either controlled by selecting the Monitoring Agent to be Installed check box in the TSAM SimpleSRM interface or through silent installation.

		IBM
Depl	loying a machine with IBM Tivoli	Monitoring Agent (2 of 2)
Fron	n Self Service User Interface:	
• Re	equest a New Service > Virtual Server Ma	nagement > Create Project with VMWare Server
 Fil 	ll in required fields as appropriate	
■ In	the Other Settings tab decide whether to s	elect the Monitoring Agent to be Installed check box
Create Project wi Project Details Requested Image	th UMware Servers 00 Will Projecto tables Projecto near more Wheare virtual machines costaining a software image.	
Server Details (optional) Additional Software (optional) Network	*Project Name *Team to Grant Access test: Monitoring L2 Project Description	Create Project with VMears Servers 00 Project Deals Brager
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		(adona) Satona) Sumary
Check resources	Back Next Finish Cancel	There are sufficient resources. Back Next Fresh Cancel
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Focus on the IBM Tivoli Service Automation Manager V7.2.2 SimpleSRM user interface. Perform these steps to deploy a virtual machine with an IBM Tivoli Monitoring Agent:

Select Request a New Server -> Virtual Server Management -> Create Project with VMWare

You can of course choose to Create Project in specific Oss, it is not a problem.

Once you reach the Other Settings tab, select the Monitoring Agent to be Installed check box.



High-level monitoring data is viewable after the machine with monitoring agent is deployed through the SimpleSRM user interface. Click the Project Name in the SimpleSRM interface under the My Project portlet. The monitoring data is related to memory, processor, and disk usage percentages.

	IBM
Summary	
 Now that you have completed this training module, you can accomplish thes Give an overview of IBM Tivoli Service Automation Manager V7.2.2 and integration Configure IBM Tivoli Monitoring Agents for provisioning Deploy a virtual machine with an IBM Tivoli Monitoring Agent View monitoring data in the IBM Tivoli Service Automation Manager V7.2 Interface 	e tasks: IBM Tivoli Monitoring Agent 2.2 Self-Service User
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Now that you have completed this training module, you should be able to accomplish these tasks:

Explain at a high-level the integration of IBM Tivoli Service Automation Manager V7.2.2 with an IBM Tivoli Monitoring Agent

Configure Monitoring Agent for provisioning purposes

Deploy a Machine with ITM Agent

View monitoring data in an IBM Tivoli Service Automation Manager V7.2.2 Self-Service User Interface

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