

CVP Memory Troubleshooting with Jconsole

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Introduction

This document describes how to use Java Console (jconsole) tool to troubleshoot Cisco Unified Customer Voice Portal (CVP) memory leak issues.

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics

- Cisco Unified Customer Voice Portal (CVP)
- Java Console utility

Components Used

The information in this document is based on CVP version 9.0(X) and above.

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

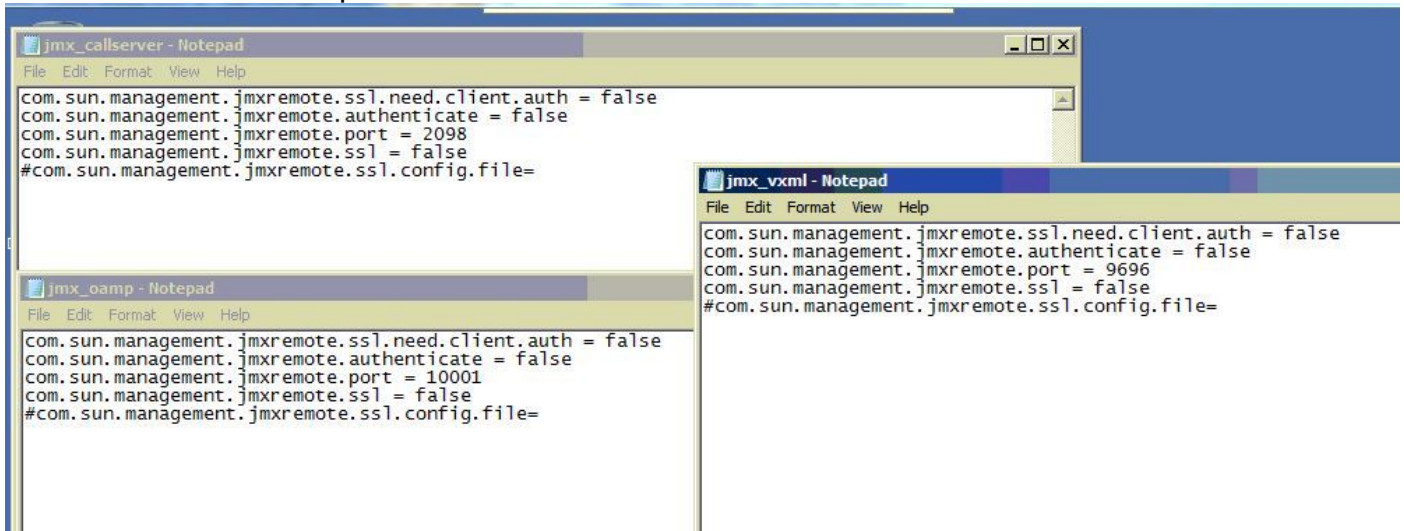
Jconsole Utility

For troubleshooting Call Server, VXML server memory leak or performance related issues often it is necessary to turn up java heap dump trace in jconsole utility. This is usually done after narrowing down a resource problem to a specific service or services in the server via event viewer, task Manager, and/or perfmon logs tools. The utilities dump heap is a low level trace file and is recommended to be turned up on top of CVP troubleshoot trace level.

Jconsole by default is located in the path "C:\Cisco\CVP\jre\bin" of Call Server, VXML, and OAMP servers and to login into the console you must first configure the port details in jmx_callserver.conf, jmx_vxml.conf, and jmx_oamp.conf configuration files of these servers respectively

- Call Server JMX port 2098

- VXML Server JMX port 9696
- OAMP server JMX port 10001

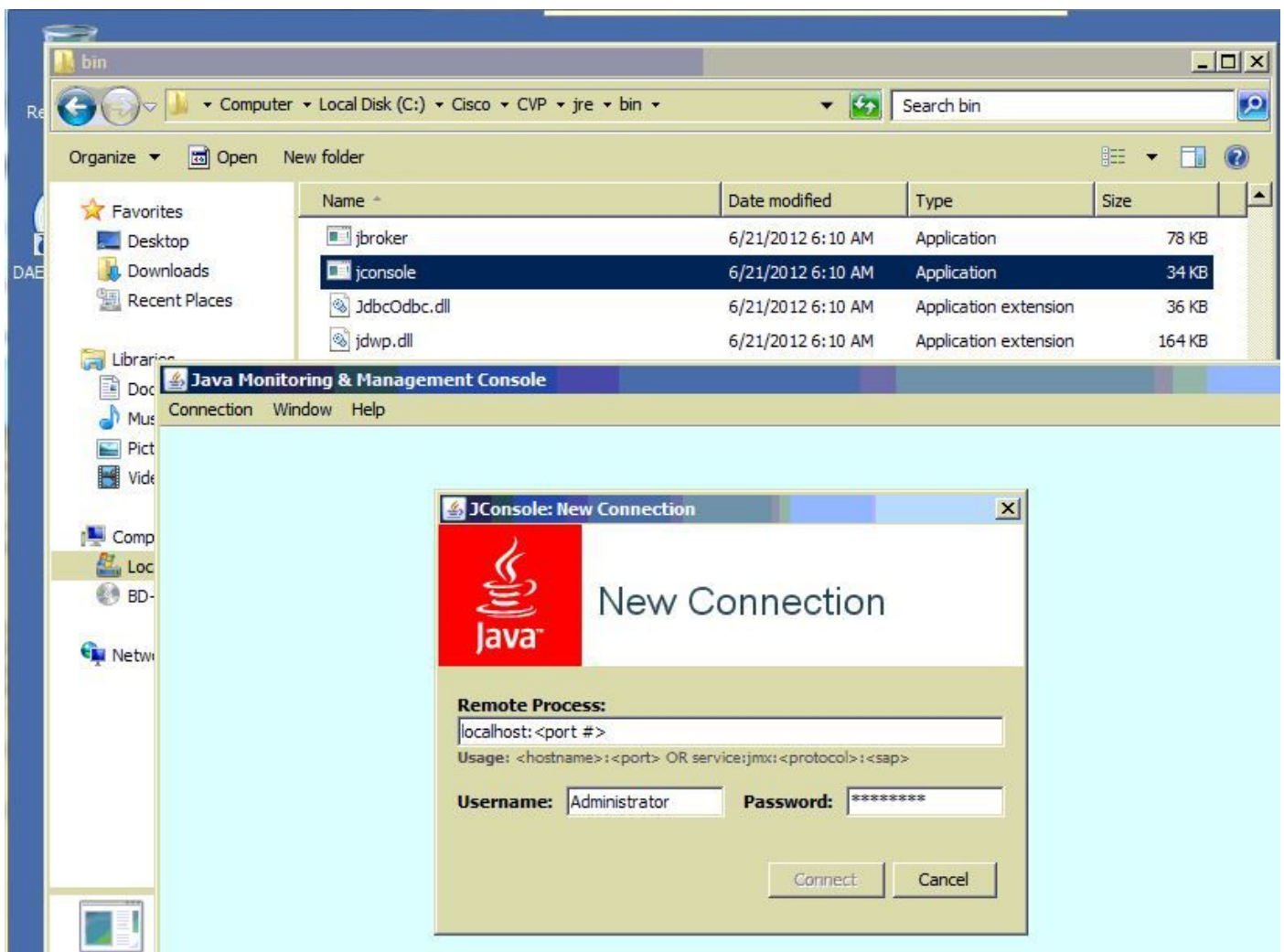


After the configuration file is updated, execute the utility jconsole as explained in these steps

Step1. Open %CVP_HOME%/CVP/jre/bin/jconsole.exe3.

Step2. Connect to localhost, and specify the port number corresponding to Callserver, VXML or OAMP server JMX port.

Step3. Login with CVP oamp login credential or Admin credential.



Step4. Open MBeans tab.

Step5. Open com.sun.management - HotSpotDiagnostics - Operations - dumpheap.

Step6. In p0 enter a file name and path to which you want to direct the dump. Leave p1 as true. Click on dumpHeap button and collect the generated file.

The screenshot shows the Java Monitoring & Management Console interface. The left sidebar displays a tree view of MBeans, with the path `com.sun.management.HotSpotDiagnostic` expanded to show the `Operations` sub-tree, where `dumpHeap` is selected. The main area shows the `Operation invocation` for `void dumpHeap (p0 String , p1 true)`. Below this, the `MBeanOperationInfo` table provides details about the operation and its parameters. At the bottom, the `Descriptor` table shows the underlying Java types for the operation and parameters.

Name	Value
Operation:	
Name	dumpHeap
Description	dumpHeap
Impact	UNKNOWN
ReturnType	void
Parameter-0:	
Name	p0
Description	p0
Type	java.lang.String
Parameter-1:	
Name	p1
Description	p1
Type	boolean

Name	Value
Descriptor	
Operation:	
openType	javax.management.openmbean.SimpleType(name=java.lang.Void)
originalType	void
Parameter-0:	
openType	javax.management.openmbean.SimpleType(name=java.lang.String)
originalType	java.lang.String
Parameter-1:	
openType	javax.management.openmbean.SimpleType(name=java.lang.Boolean)
originalType	boolean