Java Applications Timeout through Zero Trust Network Access (ZTNA) Module for Secure Access

Contents

Introduction

This document describes the issue faced when accessing Secure Access private resources through Java Applications.

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics:

- Zero Trust Network Access (ZTNA)
- Secure Access
- Secure Client

Components Used

The information in this document is based on these software and hardware versions:

- Windows 10
- Windows 11
- Secure Client Version 5.1.2.42
- Secure Client Version 5.1.3.62
- Secure Client Version 5.1.4.74

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, ensure that you understand the potential impact of any command.

Background Information

Secure Access allows access to private resources through different deployment types, one of them is through Secure Client ZTNA Module.

This document assumes that you have already configured private resources to be accessed through a Java based application.

Problem: Private resources are not accessible through ZTNA module using Java based application.

When accessing private resources through Java applications, the connection is timing out, or resulting in very slow connection.

This is caused by the IPv4 mapping to IPv6 that is done by default by the Java software. while ZTNA does not support intercepting IPv6, the connection fail in initial process.
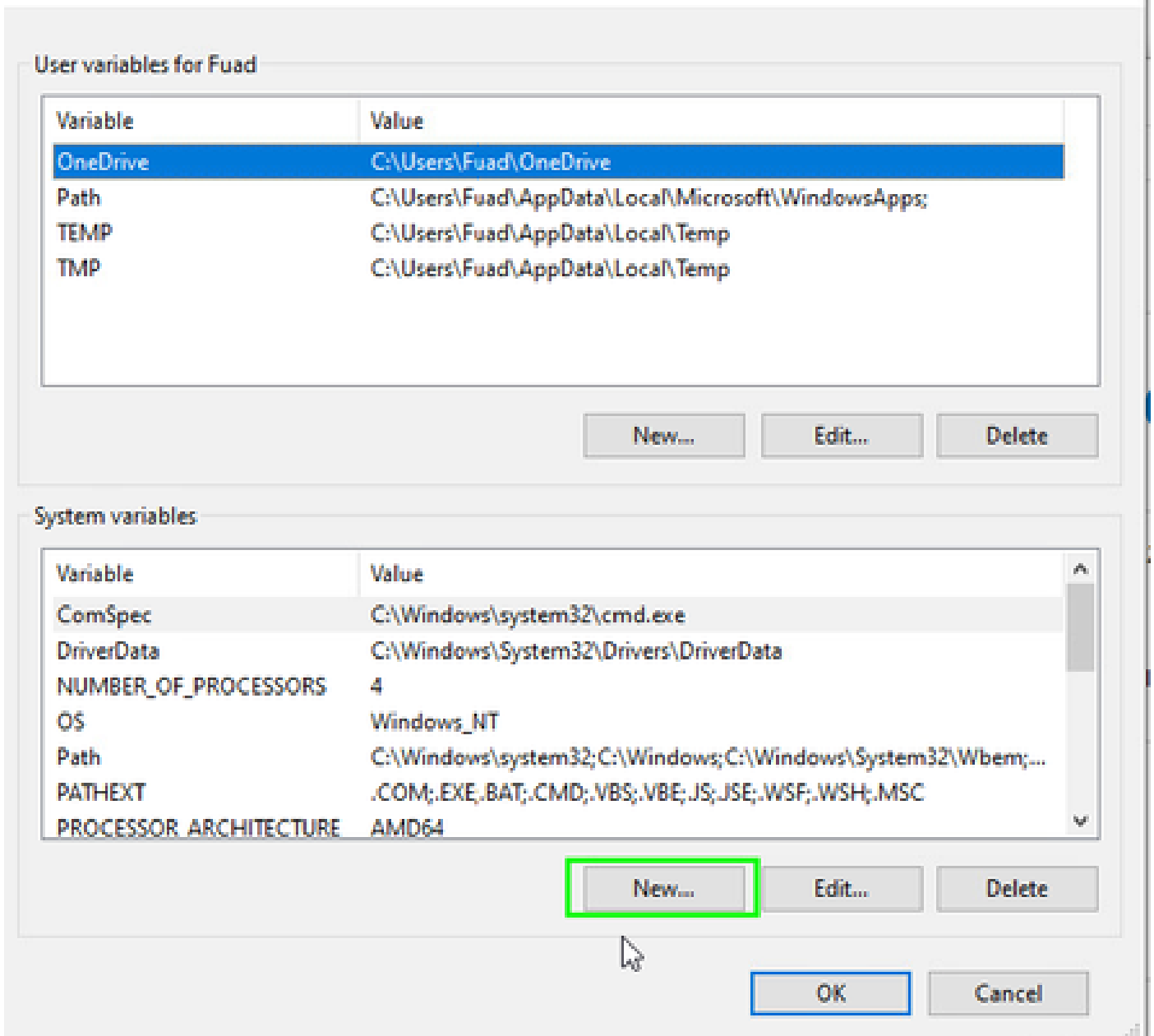
Solution

Configure the java variables on your source computer, to prevent java applications from performing IPv4 to IPv6 mappings.

Windows OS

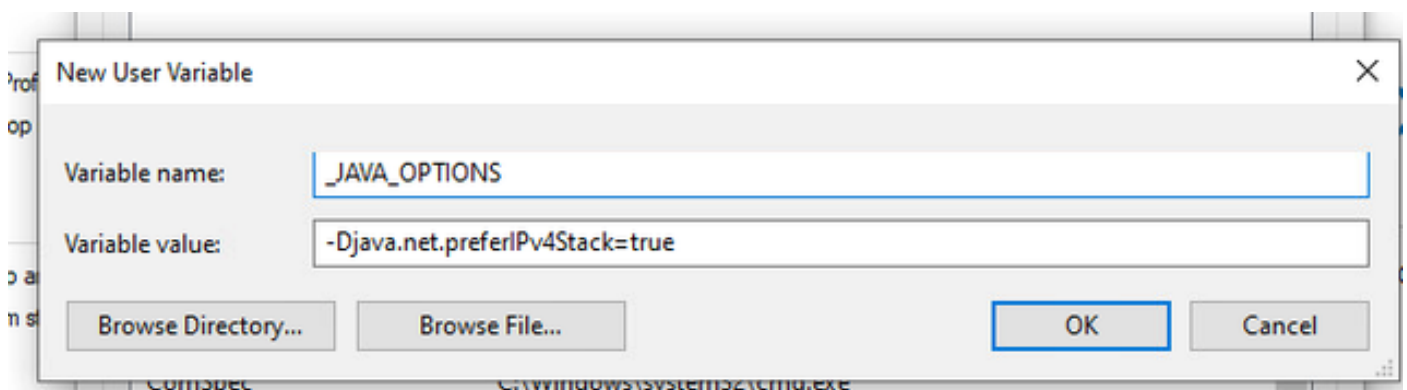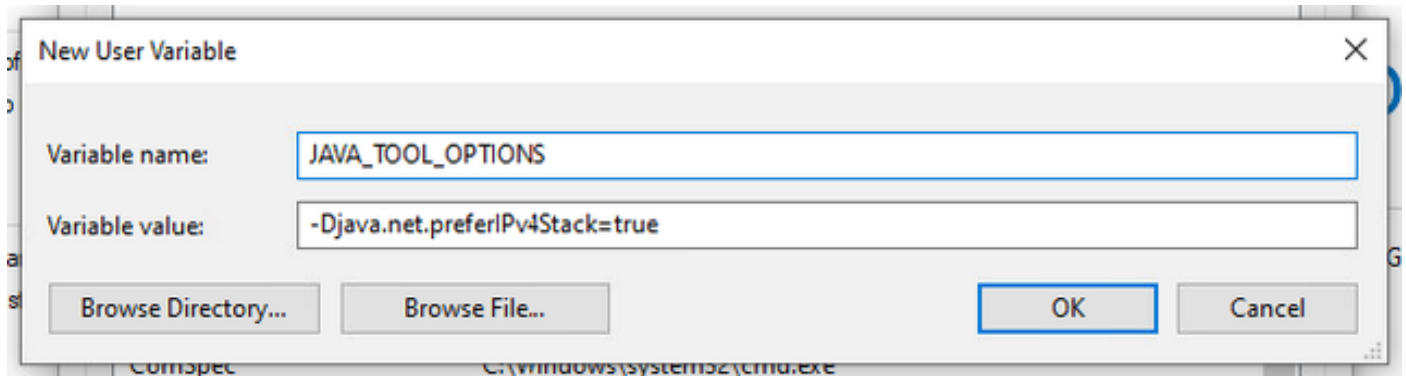**Step 1:** Access the Control Panel -> System -> Advanced System Settings -> Environment Variables

Step 2: Define the two system variables:

Variable Name: _JAVA_OPTIONS
Variable Value: -Djava.net.preferIPv4Stack=true

Variable Name: JAVA_TOOL_OPTIONS
Variable Value: -Djava.net.preferIPv4Stack=true

Mac OS

This line can be added to either /etc/profile (global) or to ~/.profile (user-specific).

```
export _JAVA_OPTIONS="-Djava.net.preferIPv4Stack=true"
export JAVA_TOOL_OPTIONS="-Djava.net.preferIPv4Stack=true"
```

Related Information

- **Secure Access Documentation**
- **Technical Support & Documentation - Cisco Systems**