

Vantage DLL Database Connector



TRAINING GUIDE

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1 Introduction

1.1 Purpose and application

The purpose of this document is to describe how to support data export from Vantage through customer supplied Windows DLL stubs.

1.2 Document overview

The document is divided into several chapters with the following content:

Chapter 1: Introduction

This chapter contains an introduction to the document and its application.

Chapter 2: DLL Database Connector

Chapter 2 describes what is "DLL Database Connector" and the process of data export from Vantage through customer database.

Chapter 3: Usage

Chapter 3 describes how to configure and use the connector program.

Chapter 4: The System Diagram

2 DLL Database Connector

2.1 What is DLL Database Connector

DLL Database Connector is python script which support uploading the data export from Vantage through customer database. In this way, Vantage doesn't upload the data directly, it would call the dll library and upload the data through the dll library.

2.2 DLL library

DLL is a windows library which only runs in windows system. To protect the database, some OEM factories would not allow other program or system connect their database directly.

2.3 Architecture

The Vantage DLL server is used in production sites where the only documented way to export test results is through a customer supplied Windows DLL API.

Since the DLL cannot run on the Vantage Manager chassis, it needs to run on some Windows server or customer PC where the DLL can run.

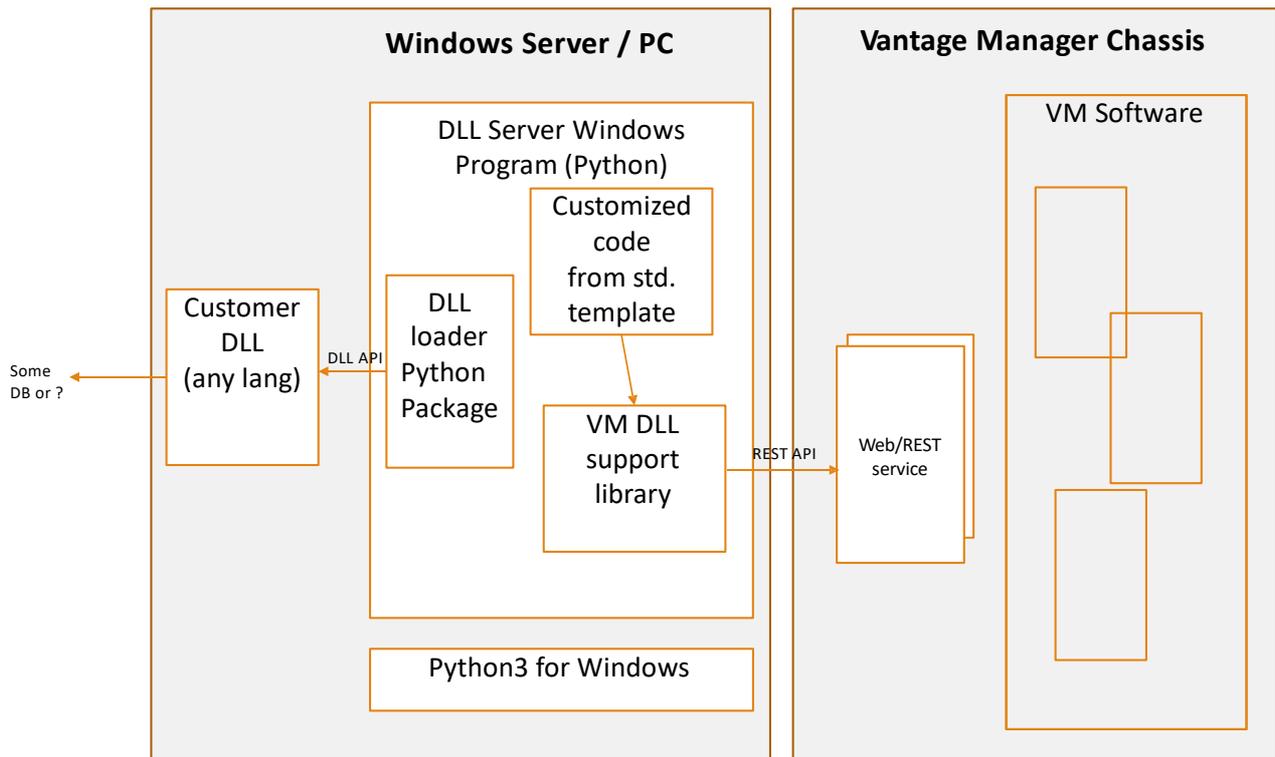


Figure 1. DLL server architecture

The figure above shows the architecture of the DLL interface server. The DLL interface is a python script which is executed on a windows platform.

The windows version used must support python3 as well as of cause the customer supplied DLL..

The server program consists of a number of libraries and template code for a server implementation. The template code must be modified to support the actual customer DLL API, which is different in each case.

The python *ctypes* function library may be used to load the DLL from Python. It provides C compatible data types, and allows calling functions in DLLs or shared libraries. It can be used to wrap these libraries in pure Python.

2.4 Workflow

The figure below shows the tester workflow for a tester at a sample customer. The PROC A, B and C (marked with red circles) all involves communication with the external customer DB.

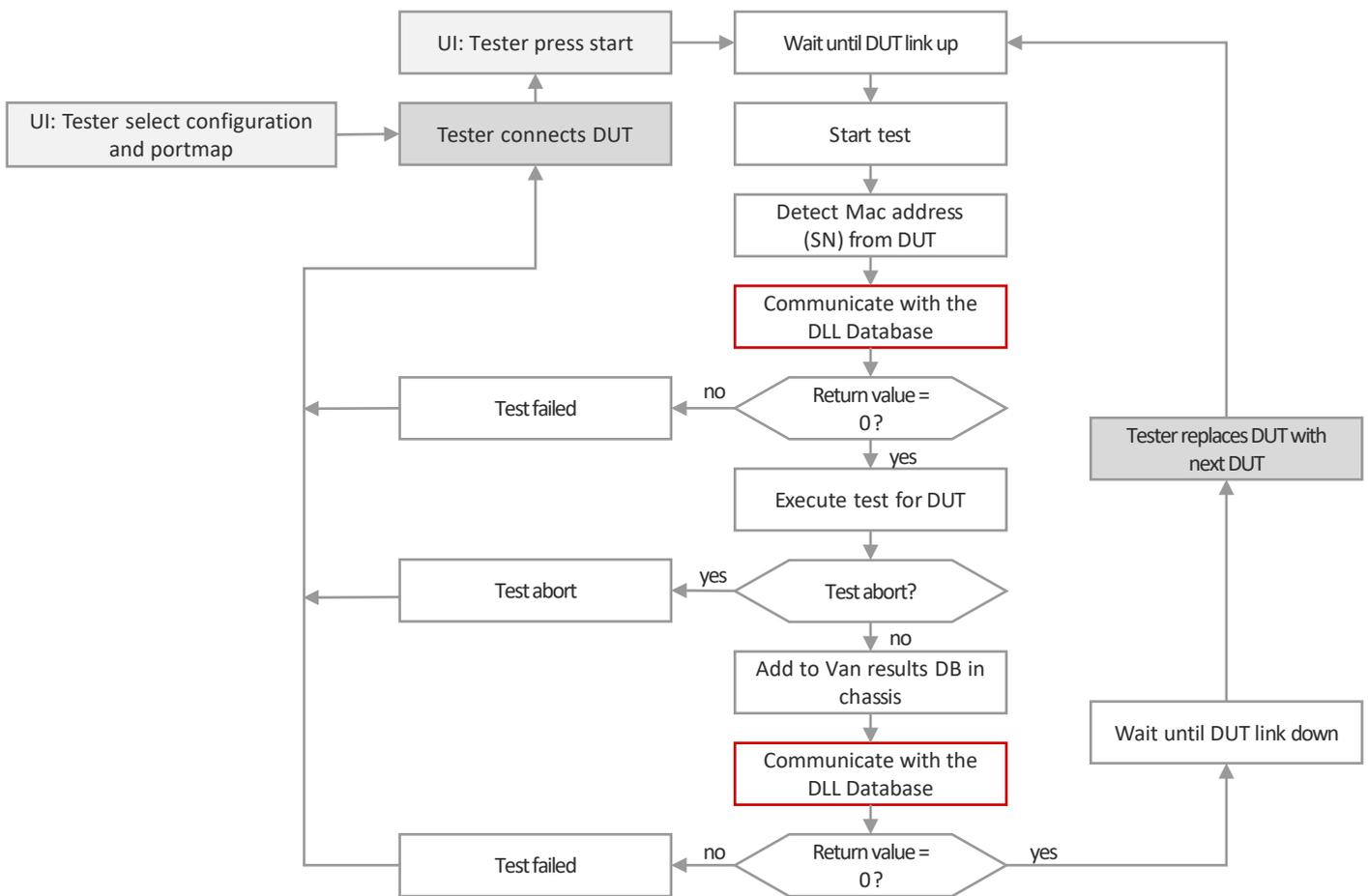


Figure 2. Sample tester workflow

In some cases the communication occurs directly via the network from the Chassis to the customer results DB and in this case it will be implemented in chassis by use of a customer feature event handler.

In other cases the communication needs to go through a propriety Windows DLL as described above. In this case the DLL server is needed and the scenario in the next section describes how the communication is handles.

3 Usage

3.1 Installation

Vantage dll database connector is a standard Windows application which requires below windows and PC configuration:

System: Windows 7 and higher
 CPU : Intel Core I3 and higher
 RAM : 2GB and higher

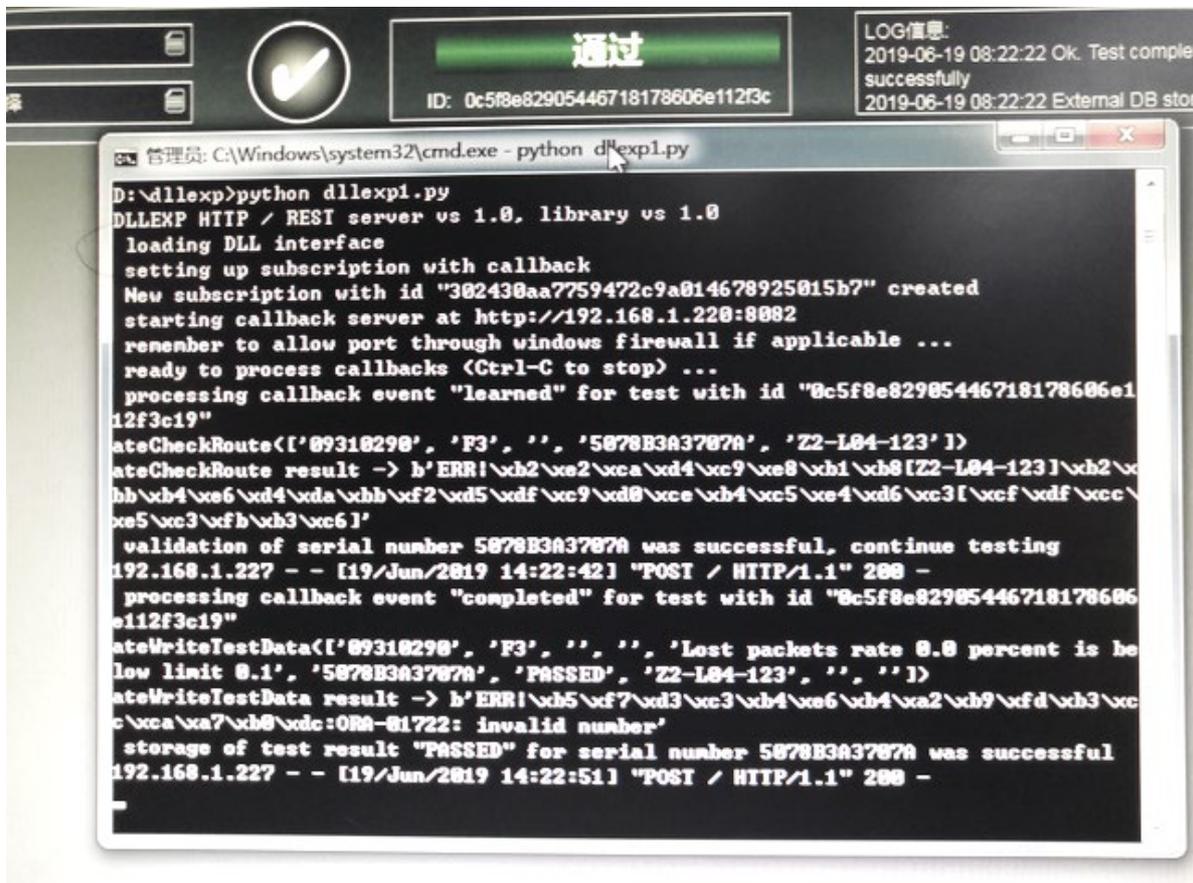
Other Requirements:

1. Need install python3 and “request” module.
2. All files need to be stored within the same folder as the script in.

3.2 Run the program

1. Open the “config.txt” file, input the chassis ip address and the configuration value in it.
 - Chassis IP Address: The chassis ip address;
 - PO: Production Order
 - SID: Station ID
2. “Start” + “R” and input “cmd” to call the dos command interface. Enter the script folder as:


```
“cd /d F:\Vantage\script”
```
3. Then input “python dllexp1.py” to run the Dll Database Connector.



4 The System Diagram

