Summary

Symptom

1. This SAP Note deals with frequently asked questions (FAQ) about the virus scan interface (VSI).

2. This SAP Note provides information about integrating a virus scan interface (VSI) into your own SAP applications.

Other terms
NW-VSI, VSI, virus, virus scan interface, CL_VSI, virus scan provider, virus scan server, "This adapter will only scan two defined objects", This adapter will only scan two defined objects, adapter, scan, objects, NW-VSI 2.00, VSI2

Reason and Prerequisites
You want to check whether the actual virus scan interface must be called or implemented, or if you can use the SAP standard integration for exchanging files (GUI or HTTP).

Solution

3. Question: Where is documentation about the interface available?

Answer: The virus scan API is the same from SAP R/3 Enterprise up to the current releases. New features will gradually be made available in old releases. Therefore, we can refer you to the following:

SAP Help Library:

Secure Programming Guide ABAP:
http://help.sap.com/saphelp_nw2004s/helpdata/en/6d/e6c3076f1243d0a133d1b5fb991412/frameset.htm

Secure Programming Guide Java:
http://help.sap.com/saphelp_nw2004s/helpdata/en/30/42c13a38b44d5e8d1b140794e8e850/frameset.htm

4. Question: As of when can I use the virus scan in SAP applications?

Answer: As of SAP NetWeaver, from a technology point of view, you can use the virus scan as of SAP_BASIS 640 for ABAP and J2EE with feature pack (which corresponds to Support Package 7). From an application point of view this means: The virus scan function is available for all SAP solutions that are based on SAP NetWeaver (for example, SAP Business Suite, SAP Business ByDesign).
Before SAP NetWeaver, the virus scan is available in SAP R/3 Enterprise as of Support Package 63. From a technology point of view, it is available as of SAP_BASIS 620, SAPKB62063.

5. Question: When is the anti-virus routine integrated into the standard upload?

Answer:

a) ABAP:

As of SAP_BASIS 620 of Support Package 64 (see SAP Note 1058031).

As of SAP_BASIS 640 Support Package 11 (see Note 1058032) or higher (that is, in all subsequent versions).

b) Java: As of SAP J2EE Support Package 13 (see Note 848189) or higher.

6. Question: Which functions in ABAP were enhanced with SAP_BASIS 620 Support Package 64 or SAP_BASIS 640 Support Package 11?

Answer: 1. The function module 'GUI_UPLOAD'
   2. The class method 'CL_FRONTEND_SERVICES=>GUI_UPLOAD'
   3. The class 'CL_HTTP_ENTITY=>GET_DATA' (ICF framework, BSP, Web Dynpro ABAP, REST and so on)

7. Question: Which functions in Java were extended with NetWeaver 2004 (640) Support Package 13?

Answer: The WebDynpro for Java control 'FileUpload', meaning uploading using WebDynpro for Java.

8. Question: As an application developer, how I can see whether the integrated anti-virus routine works in my application?

Answer: To check this, you must use one of the listed functions for the UPLOAD. In general, the virus scan in the Internet Communication Framework (ICF), in the Business Server Page (BSP) or in Web Dynpro for ABAP can 'always' be carried out because the scan was integrated in the ICF layer for the Internet Communication Manager (ICM). To be certain, and to test the availability of the scan, you must activate the virus scan, that is, activate the relevant profile. Note the following: If you activate a virus scan profile without having configured a real virus scanner, an error message is displayed during the upload because this configuration is incorrect. As a result, you can test whether or not file upload is possible after you activate the profile in a system that does not have virus scanners. If the file upload results in an error, the integrated anti-virus routine is executed and this proves that the virus scan function is called.

9. Question: Where do I obtain the interface package for Java?
Answer: The JAR package with the Java interfaces is included in each SAP Application Server (AS) Java and also in the interface set of SAP NetWeaver Developer Studio. The JAR package has been added to this SAP Note in case you use a different development tool or if no SAP J2EE Engine is locally available.

When you include the virus scan in your own Java library, which is also used in your own applications, you require a reference to the J2EE interface "Virus Scan Interface" when using the virus scan. If you cannot use this reference, you can also use the attached sample code in the package VSIService.zip to call the functions using "Reflection". In this case, you do not require a reference to SAP components, that is, you can include the virus scan in your own applications independent of SAP components.

10. Question: Where can I find the JavaDoc documentation for the Java interface?

Answer: The virus scan application programming interface (API) is available in the SAP Help Portal at:

11. Question: How do I test the virus scan if a virus scanner is installed?

Answer: To do this, you must activate the virus scan, then you can test using transaction 'VSCANTEST' (ABAP) or the test application 'http://hostname:port/vscantest' (J2EE). For further information, see the SAP tutor documentation.

  a) RFC destination setup:
  http://service.sap.com/~sapidb/011000358700003298652004E.sim

  b) Configuring the interface:
  http://service.sap.com/~sapidb/011000358700003298672004E.sim

  c) Testing the interface:
  http://service.sap.com/~sapidb/011000358700003298692004E.sim

12. Question: Which product for the virus scan should be used for development or testing?

Answer: There is a Software Development Kit (SDK) for certifying the NW-VSI interface at:

It contains the sample adapter "vssap" that detects the EICAR test virus (SAP Note 666568). Unpack the sample adapter (vssap.dll, vssap.so, and so on) for your own environment and specify it as the adapter in the configuration (field: Adapter Path). For this
purpose, you require the complete path to the library. In other words, for Windows, the example 'd:\usr\sap\SAP\exe\vssap.dll' might apply, for Linux '/usr/sap/SAP/exe/vssap.so'. You do not need to install any further anti-virus products for this. However, the adapter is only used for test during the development and to check whether the anti-virus routine works in a particular application. It is not a substitute for a genuine anti-virus product.

13. Question: What does the error "This adapter will only scan two defined objects" mean?

Answer: This error is generated by the SAP sample adapter "vssap". The error occurs when you do not use the EICAR test virus or a positive pattern defined by SAP. This is because the sample adapter does not replace a necessary AV product and it is not a replacement for this. The SAP sample adapter "vssap" was designed to provide a test for your own developments and to enable administrators to set up VSI in an SAP system. For production operation, you must replace the path to "vssap" in the corresponding configuration for VSI; afterwards, this product is used. This is meant to separate the AV integration from the decision for a specific AV product. For tests with an actual AV product, you must take the instructions of the manufacturer into account. SAP Note 1494278 provides an overview of partner connections.

14. Question: How is the virus scan activated or deactivated?

Answer:

a) ABAP:

    (a) In transaction VSCANPROFILE, you can use the 'Active' indicator to activate or deactivate a profile.

    (b) You can use the viewcluster maintenance (transaction SM34) to configure the delivered virus scan profiles. The name of the viewcluster is 'VSCAN_PROFILE_VC'. You can activate or deactivate a profile here using the 'Active' indicator.

b) Java up to 70x:

    You can configure a virus scan profile, and activate/deactivate it in administration by choosing 'Visual Administrator Service' -> 'Virus Scan Provider' -> 'Profiles'.

c) Java Enterprise (JEE) as of 710 and higher:

    The configuration for the Virus Scan provider is contained in the NetWeaver Administrator (NWA).

    You must at least create a default profile. Delivered profiles refer to a default profile. If you do not define a default profile, the virus scan does not work.
15. Question: Which applications are supposed to use their own profile?

Answer: Applications that use virus protection as a feature should use a customized profile. The reason for this is the independent nature of the basis settings. The virus scan is always performed when the profile used is active, that is, if the delivered base profiles have been deactivated for performance reasons, the scan can nevertheless be executed if a specific profile name is assigned to the upload module (GUI or HTTP). Another reason for specific virus scan profiles is they enable configuration option within the profile, that is, if an application has different scenarios with the anti-virus routine (uploading from the Internet or intranet, for example), it must also include several profiles that can be used to configure and manage the anti-virus routine.

16. Question: Which external product can I use?

Answer: SAP Note 1494278 contains an overview of possible connections. You can request a list of certified products via icc@sap.com. The interface name is NW-VSI. We recommend that you only use certified products in production environments. Ultimately, however, it is the customer's decision.

17. Question: Is VSI only provided via SAP NetWeaver?

Answer: No, by now there are also integration packages that can be used without SAP NetWeaver. This is due to the fact that VSI is part of the SAP security standards and therefore should be contained in all other products.

18. Question: What is the current version of VSI?

NW-VSI 2.00 was officially released in Q2 / 2013.

19. Question: Why are there new versions for VSI?

The certified interface NW-VSI may only be changed after the end of the duration of the certification (usually 3 years). The version NW-VSI 1.00 did not contain any certified partners. Therefore, this certification is no longer maintained; it was replaced by NW-VSI 2.00. NW-VSI 2.00 should meet new security requirements, in particular in the area of XSS in files. SAP Note 1883424 also contains an overview of the new features.

20. Question: What happens when the certification expires?

As long as a partner continues the support for the product, SAP support is provided. However, there must not be any more new partner products for these. New products must be recertified.

21. Question: Can a VSI-1 certified product be used for NW-VSI 2.00?
Generally yes; pure AV protection is still possible with NW-VSI 2.00. However, it may lead to problems if a scan profile contains requirements that a VSI-1 product does not understand. An example for this would be the detail filter. However, all new features in NW-VSI 2.00 can be deactivated again using configuration options, so that a VSI-2 profile with a file filter can be made VSI-1 compatible in the customer system. However, customers should be aware of the security risk. In this SAP Note, we would like to explicitly remind you that it carries a certain risk if you deactivate VSI-2 profiles. For example, this risk is described in SAP security note 1693981.

Further questions:
Questions that have not been dealt with here can be sent to Security Product Management and may be clarified by further additions to notes.

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**Attachments**

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