

In order to certify the operation of the server, the auditor will first examine the software for the server and the agent. The auditor will perform or observe a build of the software from the sources and will verify, through its audit server or by other means, that the software that was built in is the same software actually running on the remote server 24.

5 Finally, the auditor will supplement and confirm this audit by examining the actual data received by the servers.

To accomplish this task, the auditor will determine from the sources that the software can only receive a XAP_Packet class and that the software can only send a XAP_Packet class. The auditor will then examine the software and verify that a XAP_Packet can only
10 contain certain types of data and will note that this data is necessary for the installation of the software and does not include data that is not necessary for installation of the software.

The auditor will verify that the TCP/IP receive function occurs only inside a class XAP_Receive, and appears only inside this class. The auditor will verify that a XAP_Receive class can only be created using a XAP_Packet, and the auditor will observe
15 that the only interface to the rest of the application from the XAP_Receive class is through the XAP_Packet. From these observations, the auditor will be able to conclude that the application can only receive data that can be inserted into a XAP_Packet.

The auditor will verify that the TCP/IP send function is encapsulated in a class XAP_Ship, and appears only inside this class. The auditor will verify that a XAP_Ship
20 object can only be created from, a XAP_Packet, and that therefore, without a XAP_Packet object the application will cannot ship data over TCP/IP. The auditor will verify that the TCP/IP ship function only ships the data provided to it by XAP_Packet. From these observations, the auditor will be able to conclude that the application can only ship data that can be extracted from a XAP_Packet.

25 From examination of the sources, the auditor will observe that a XAP_Packet can only be composed of XAP_Record objects. C++ has facilities for defining insertions and extractions from classes, which can limit the insertions and extractions to certain other