

HOW TO ADD A NEW SECURITY TEST INTO SAM

For each new security test intended to be used by SAM, you must provide two files:

- a file describing the test
- the test script

A Test Description File

File Naming Convention:

You should call this file in the format `< sensor name >-< test name >.def`, where `< sensor name >` is the service type your script will test:

ArcCE, BDII, CE, FTS, LFC, MyProxy, RB, RGMA, SE, SRM, SRMv2, VOBOX, VOMS, gCE, gRB, sBDII

An example would be: `CE-wn-sec-crl.def`

Structure:

Inside this file you must specify the:

```
testName: <sensor name>-<test name>
testTitle: <a short line describing the test>
testAbbr: <an abbreviation name>
testHelp: <a URL pointing to the documentation>
EOT
```

Note that you should end the file with a single line having `EOT`

An example of this file would be:

```
testName: CE-wn-sec-crl
testTitle: CRLs validity on WN
testAbbr: crl
testHelp: http://grid.cyfronet.pl/sam-doc/CE/CE-wn-sec-crl.html
EOT
```

The Test Script

File Naming Convention:

As explained before, call this file in the format `< sensor name >-< test name >`

Example: `CE-wn-sec-crl`

Exit Code:

When executing the test, it must return one of these values:

Value	Description
0	Cannot determine service status
\$SAME_OK	Service is running as expected
\$SAME_WARNING	Service may be degraded in some way, or about to become degraded

<code>\$_SAME_ERROR</code>	Service has a problem affecting functionality and/or availability
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Note that `UNKNOWN` is used by the probe when the probe has an internal problem which means that it cannot accurately determine the status of the service. This is different, for instance, to the service not being contactable.

The Test Output and Encrypting Part of its Data:

About the test output, it can print to stdout whatever you consider interesting in HTML compatible format. Example:

```
<h2>Searching files writable for Other</h2>
<p>Checking files and directories found in env vars...<br/>Detailed results may not be publicly v
<br>
Here you can put the detailed result of the test <br>
in HTML compatible format<br>
<br>
EOT
```

but the sensible information must be encrypted first. For this, we recommend to store in a variable all the outputs, and print & encrypt the sensible data at the end of the script execution.

Here you have an example of a bash function that outputs the test encrypting part of it (what we previously stored in the `output` variable):

```
function Print_Summary_Metric_Results () {
    echo "<h2>Searching files writable for Other</h2>"
    echo "<p>Checking files and directories found in env vars...<br/>Detailed results may not be p

    if [ $total_errors -gt 0 ]; then
        echo "<h4><font color=red>ERROR</font></h4>"
    else
        echo "<h4><font color=green>OK</font></h4>"
    fi

    OPENSSSL=`which openssl`
    ENCRYPTION_CERT=$SAME_HOME/sensors/common/sam-cert.pem

    # SSL is mandatory for security tests
    if [ "x$OPENSSSL" == "x" ]; then
        echo "<p><i>FAILED</i> - Cannot find OpenSSL, detailed results will <b>not</b> be available
        return_code=$_SAME_WARNING
    fi

    # A certificate is also mandatory to encrypt the results
    if [ "x$ENCRYPTION_CERT" == "x" ]; then
        echo "<p><i>FAILED</i> - Cannot find an encryption certificate, detailed results will <b>no
        return_code=$_SAME_WARNING
    fi

    if [ "x$ENCRYPTION_CERT" != "x" ]; then
        if [ "x$OPENSSSL" != "x" ]; then
            echo "<!--"
            CRYPTED_OUTPUT=`echo -e "${output}" | ${OPENSSSL} smime -encrypt -des3 ${ENCRYPTION_CERT}
            echo -e "BEGIN_ENCRYPTED_RESULT\n${CRYPTED_OUTPUT}\nEND_ENCRYPTED_RESULT"
            echo "-->"
        fi
    else
        echo $output
    fi
}
}
```

If adding such a function to your test is painful because you cannot test in a real environment, we'll do it for you when we will integrate your test into SAM. More work for us but...

Where to submit your new tests

Once you have the two files, send them by email to: same-devel@cernNOSPAMPLEASE.ch

SAM security tests in CVS

You can find all SAM tests at this CVS location [↗](#).

By now there are only two security tests, which are:

- [CE-wn-sec-fp](#) [↗](#)
- [CE-wn-sec-crl](#) [↗](#)

Questions/Comments

If you have any question about this procedure, feel free to send an email to:
sam-support@cernNOSPAMPLEASE.ch

-- RomainWartel - 03 Sep 2007

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