

FTICKS for NPS

NOTE: This is untested.

This only applies to Federation Operators and not to individual sites

The syslog server configuration below is for NXLog which is only capable of sending us a form of the Windows Event logs, not FTICKS unfortunately. Recommendations for free Windows syslog servers start and stop with NXLog and, in it's Community form, is simply unable to generate FTICKS.

However, if you have existing software which can accept Windows Eventlogs (or otherwise access NPS logs) and change the format into FTICKS then feel free to do so. The criteria for FTICKS are:

- Uses the [FTICKS](#) format
- Proxies to utilities.govroam.uk on port 514/UDP with Facility local5
- Includes in the FTICKS '#FEDID=0X000#' where 0X000 is replaced by the Federation ID supplied by Jisc.
- Filters down the proxied log to just those for
 - Users on the govroam SSID
 - Successful authentications
 - Only authentications between member sites (i.e. NOT those to or from the Jisc NRPS, or within an organisation)

Installation

Download NXLog Community Edition from here:

<https://nxlog.co/products/nxlog-community-edition/download>

and install it. Make of note of where the nxlog.conf file is.

Configuration

Edit the *nxlog.conf* file to read, making sure that the ROOT points to the directory it's installed in:

```
Panic Soft
#NoFreeOnExit TRUE

define ROOT      C:\Program Files (x86)\nxlog
define CERTDIR  %ROOT%\cert
define CONFDIR  %ROOT%\conf
define LOGDIR   %ROOT%\data
define LOGFILE  %LOGDIR%\nxlog.log
LogFile %LOGFILE%

Moduledir %ROOT%\modules
```

```
CacheDir %ROOT%\data
Pidfile %ROOT%\data\nxlog.pid
SpoolDir %ROOT%\data

<Extension _syslog>
  Module xm_syslog
</Extension>

<Extension _exec>
  Module xm_exec
</Extension>

<Output syslog_tls>
  Module om_ssl
  Host 212.219.243.132
  Port 6514
# CAFile c:/Program Files (x86)/nxlog/data/cacert.pem
# CertFile c:/Program Files (x86)/nxlog/data/clientreq.pem
# CertKeyFile c:/Program Files (x86)/nxlog/data/clientkey.pem
  AllowUntrusted 1
  OutputType Syslog_TLS
  Exec to_syslog_ietf();
</Output>

<Output syslog_tcp>
  Module om_tcp
  Host 212.219.243.132
  Port 601
  OutputType Syslog_TLS
  Exec to_syslog_ietf();
</Output>

<Input eventlog>
  Module im_msvistalog
  <QueryXML>
    <QueryList>
      <Query Id="0" Path="System">
        <Select Path="System">*[System[Provider[@Name='NPS']]]</Select>
        <Select Path="Security">*[System[Provider[@Name='Microsoft-
Windows-Security-Auditing'] and Task = 12552]]</Select>
      </Query>
    </QueryList>
  </QueryXML>
  <Exec>
# Don't send log if going to or coming from a NRPS
# Change to match the ClientName and ProxyPolicyName as appropriate
  if $ClientName =~ /NRPS/i drop();
  if $ProxyPolicyName =~ /NRPS/i drop();

# Replace with the provided Federation ID
```

```
$FederationID = "XXXXX";

# Send Client Name as the Operator Name if present, otherwise use a default.
# Replace 1something.here with the Federation's Operator Name
if $ClientName == ''
{
    $OperatorName = "1something.here";
}
else
{
    $OperatorName = $ClientName;
}
</Exec>
</Input>

<Route 1>
    Path          eventlog => syslog_tcp
</Route>
```

Replace XXXXX with the Federation ID supplied by Jisc.

Replace *1something.here* with your realm, prefixed by '1'.

The Client Name and the Proxy Policy Name for receiving from/sending to the Jisc NRPS would have to contain 'NRPS' for the above to work. Otherwise change the above so that requests to/from the NRPS are excluded from the logging.

Save the file and restart the service.

To make this work properly, the Client Name has to be in the form of a realm e.g. 1holby.nhs.uk for each of the Clients.

The stanza, `syslog_tls`, is just there for information. It's not actually used in this configuration. At a later date we'll be looking at encryption but there's a PKI to build.

This is all fairly self-explanatory. **OutputType Syslog_TLS** is needed to enforce the RFC5424 standards along with **Exec to_syslog_ietf()**. Not sure why both are needed but they really are.

In the Eventlog config the QueryXML is extracted from Windows Event Log (**Event Viewer** → **Custom View** → **Server Roles**. Right click on **Network Policy....** Choose **Properties**, **Edit Filter**, **XML** and copy the XML into the NXLog config).

Some customisation might be needed to filter only for traffic between sites, rather than traffic to/from Jisc NRPS.

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