```
**********************************************************
    3625 Mon Jan 13 01:00:22 2020
new/usr/src/man/man7d/n2rng.7d
12186 The n2rng man page incorrectly refers to n2cp
**********************************************************
'\" te
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.\" the fields enclosed by brackets "[]" replaced with your own identifying info
.TH N2RNG 7D "Jan 12, 2020"
.TH N2RNG 7D "Apr 15, 2009"
.SH NAME
n2rng \- Ultra-SPARC T2 random number generator device driver
.SH DESCRIPTION
.sp
.LP
The \fBn2rng\fR device driver is a multi-threaded, loadable hardware driver
supporting hardware assisted random numbers.
This support is built into the Ultra-SPARC T2 and later processors.
supporting hardware assisted random numbers. This support is built into the
Ultra-SPARC T2 CMT processor.
.sp
.LP
The \fBn2rng\fR driver requires the presence of the Solaris Cryptographic
Framework to enable applications and kernel clients to access the provided
services.
.SH CONFIGURATION
.sp
.LP
You configure the \fBn2rng\fR driver by defining properties in
\fB/platform/sun4v/kernel/drv/n2rng.conf\fR which override the default settings.
\fB/platform/sun4v/kernel/drv/n2cp.conf\fR which override the default settings.
The following property is supported:
.sp
.ne 2
.na
\fBnostats\fR
.ad
.RS 28n
Disables the generation of statistics.
The nostats property may be used to help prevent traffic analysis, however,
this may inhibit support personnel.
Disables the generation of statistics. The nostats property may be used to help
prevent traffic analysis, however, this may inhibit support personnel.
.RE

.SH CRYPTO STATISTICS
Solaris crypto drivers must implement statistics variables.
Statistics reported by \fBn2rng\fR may be read using the \fBkstat\fR(1M)
utility.
The \fBn2rng\fR driver maintains the following statistics:
.sp
.LP
Solaris crypto drivers must implement statistics variables. Statistics are
reported by \fBn2rng\fR using  the \fBkstat\fR(7D) and \fBkstat\fR(9S)
mechanisms. The \fBn2rng\fR driver maintains the following statistics:
.sp
.ne 2
.na
\fBstatus\fR
.ad
.RS 28n
Status (online, offline, fail) of RNG device.
.RE
```



```
.sp
.ne 2
.na
\fBrngjobs\fR
.ad
.RS 28n
Number of requests for random data.
.RE

.sp
.ne 2
.na
\fBrngbytes\fR
.ad
.RS 28n
Number of bytes read from the RNG device.
.RE

.SH KERNEL STATISTICS
.sp
.LP
The \fBn2rng\fR driver tallies a set of kernel driver statistics when in the
Control domain.
Statistics reported by \fBn2rng\fR may be read using the \fBkstat\fR(1M)
utility.
Control domain. Statistics are reported by \fBn2rng\fR using  the
\fBkstat\fR(7D) and \fBkstat\fR(9S) mechanisms. All statistics are maintained
as unsigned, and all are 64 bits.
.sp
.ne 2
.na
\fBrng(n)-cell0-bias\fR
.ad
.RS 28n
Bias setting for noise cell 0 of RNG \fIn\fR.
.RE

.sp
.ne 2
.na
\fBrng(n)-cell0-entropy\fR
.ad
.RS 28n
Entropy value for noise cell 0 of RNG \fIn\fR.
.RE

.sp
.ne 2
.na
\fBrng(n)-cell1-bias\fR
.ad
.RS 28n
Bias setting for noise cell 1 of RNG \fIn\fR.
.RE

.sp
.ne 2
.na
\fBrng(n)-cell1-entropy\fR
.ad
.RS 28n
Entropy value for noise cell 1 of RNG \fIn\fR.
Entropy value for noise cell 1 of RNG n.
.RE
```

```
.sp
.ne 2
.na
\fBrng(n)-cell2-bias\fR
.ad
.RS 28n
Bias setting for noise cell 2 of RNG \fIn\fR.
.RE

.sp
.ne 2
.na
\fBrng(n)-cell2-entropy\fR
\fIrng(n)-cell3-entropy\fR
.ad
.RS 28n
Entropy value for noise cell 2 of RNG \fIn\fR.
.RE

.sp
.ne 2
.na
\fBrng(n)-state\fR
.ad
.RS 28n
State of rng number n (online, offline, error, health check).
.RE

.SH FILES
.sp
.ne 2
.na
\fB/platform/sun4v/kernel/drv/sparcv9/n2rng\fR
\fB\fB/platform/sun4v/kernel/drv/sparcv9/n2cp\fR\fR
.ad
.sp .6
.RS 4n
Device driver (SPARC)
64-bit ELF kernel driver.
.RE

.sp
.ne 2
.na
\fB/platform/sun4v/kernel/drv/n2rng.conf\fR
\fB\fB/platform/sun4v/kernel/drv/n2rng.conf\fR\fR
.ad
.sp .6
.RS 4n
Driver configuration file
Configuration file.
.RE

.SH ATTRIBUTES
.sp
.LP
See \fBattributes\fR(5) for descriptions of the following attributes:
.sp

.sp
.TS
box;
c | c
l | l .
ATTRIBUTE TYPE  ATTRIBUTE VALUE
_
```



```
Architecture    SPARC
_
Interface stability     Committed
.TE

.SH SEE ALSO
.sp
.LP
\fBcryptoadm\fR(1M), \fBkstat\fR(1M), \fBattributes\fR(5)
.sp
.LP
\fISolaris Cryptographic Framework - Solaris Software Developer Collection\fR
.sp
.LP
\fISolaris Security for Developer's Guide - Solaris Software Developer
Collection\fR
```