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ibutils2 - InfiniBand Diagnostic Utilities README

Rev 2.1.1-0.42

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1 Overview

The `ibutils2` package Rev 2.1.1-0.42 provides diagnostic InfiniBand network tools. The package is a re-implementation of the `ibutils` package and it is created to improve performance and scalability.

1.1 Package Contents

`ibutils2` is provided as a tarball of RPM package. `ibutils2` package is installed under `/opt/ibutils2/`

1.2 `ibutils2` Installation Process

➤ *To install `ibutils2`:*

1. Make sure OFED 3.5.2 is installed on your system.
2. Select the RPM that matches the target system.

For the list of the supported Operating Systems, please refer to the Release Notes.

3. Install the RPM.

```
> rpm -i ibutils2-2.1.1-0.42.gcea6696.<arch>-<os>.rpm
```

4. [Optional] Add the `ibutils2` man pages to the man pages path.

```
> export MANPATH=/opt/ibutils2/share/man:${MANPATH}
```

2 ibutils2 Tools

The ibutils2 package includes the following tools.

Table 1 - ibutils2 tools

Tool	Description
ibdiagnet	<p>ibdiagnet performs quality and health checks, scans the fabric and extracts connectivity and devices available information.</p> <p>To display a help message which details the tool's options, please run "<code>/opt/ibutils2/bin/ibdiagnet -h</code>"</p> <p>An ibdiagnet run performs the following:</p> <ul style="list-style-type: none"> • Fabric discovery • Duplicated GUIDs detection • Duplicate Node Description detection • Alias GUIDs check • Lids check • Links in INIT state and unresponsive links detection • Counters fetch • Error counters check • Counter increments during run detection • BER test • Routing checks • Link width and speed checks • Topology matching. • Partition checks <p>The following files are generated and stored (by default) under <code>/var/tmp/ibdiagnet2</code>:</p> <ul style="list-style-type: none"> • log file: <code>ibdiagnet2.log</code> • Fabric links in LST format: <code>ibdiagnet2.lst</code> • Subnet Manger: <code>ibdiagnet2.sm</code> • Ports Counters: <code>ibdiagnet2.pm</code> • Unicast FDBs: <code>ibdiagnet2.fdfs</code> • Multicast FDBs: <code>ibdiagnet2.mcfdfs</code> • Nodes Information: <code>ibdiagnet2.nodes_info</code> • ibdiagnet internal database: <code>ibdiagnet2.db_csv</code> • pkeys: <code>ibdiagnet2.pkey</code> • alias GUIDs: <code>ibdiagnet2.aguid</code>. • SLVL tables of the fabric switches: <code>ibdiagnet2.slvl</code>
dump2psl.pl	<p>Dump psl file is used for credit loop checking based on OpenSM output files.</p> <p>For further information, please run: <code>man dump2psl</code></p>
ibdmchk	<p>A network checker and attributes analyzer tool.</p> <p>For further information, please run: <code>man ibdmchk</code></p> <p>To display a help message which details the tool's options, please run "<code>/opt/ibutils2/bin/ibdmchk -h</code>"</p>
ibcongest	<p>Provides static congestion analysis.</p> <p>To display a help message which details the tool's options, please run "<code>/opt/ibutils2/bin/ibcongest -h</code>"</p>
ibdmtr	<p>Note: Currently, ibdmtr is at an Experimental level.</p> <p>Provides the fabric trace route.</p> <p>For further information, please run: <code>man ibdmtr</code></p> <p>To display a help message which details the tool's options, please run "<code>/opt/ibutils2/bin/ibdmtr -h</code>"</p>

Table 1 - ibutils2 tools (Continued)

Tool	Description
ibgenperm	<p>Note: Currently, ibgenperm is at an Experimental level.</p> <p>Generates a permutation meeting given over-subscription. To display a help message which details the tool's options, please run <code>"/opt/ibutils2/bin/ibgenperm -h"</code></p>
ibnetsplit	<p>Provide means to automatically group hosts and create scripts that can be run in order to split the network into sub-networks each with one group hosts. To display a help message which details the tool's options, please run <code>"/opt/ibutils2/bin/ibnetsplit -h"</code></p>
ibtopodiff	<p>Performs matching between a given topology file (see <code>man ibdm-topology-file</code>) and a <code>subnet.lst</code> file (this file provides a dump of all links in the discovered fabric and generated by <code>ibdiagnet</code> or <code>OpenSM</code>). For further information, please run: <code>man ibtopodiff</code> To display a help message which details the tool's options, please run <code>"/opt/ibutils2/bin/ibtopodiff -h"</code></p>