1. Current OFED GA and RC

Last edit: 2013/3/22
- OFED 3.5 GA is released on 2013/2/14.
- Next development will be based on 3.5 kernel because there are mostly new fixes.
- OFED downloads page: https://www.openfabrics.org/resources/ofedrelated-downloads.html

2. OFED 3.5 and Ubuntu

OFED (Open Fabrics Enterprise Distribution) consists of kernel modules, upper layer protocols and utilities. All the stable bits in kernel are upstreamed. Tool 'rmadison' is used to check package version in Debian and Ubuntu (rmadison -u debian,ubuntu -S <pkg name>).

The following OFED packages are listed based on the rpms in OFED-3.5-rc6/SRPMS. Debian releases are not listed. There is no delta between Debian and Ubuntu, i.e., the latest version supported in Debian is also supported in the latest Ubuntu. Ubuntu releases prior to Oneiric are not listed. This list is put together on 2013/3/22.

OFED 3.5 GA, released on 2/14/2013	Ubuntu	O	P	Q	R
compat-dapl-1.2.19-1.src.rpm	Not found	-	-	-	-
compat-rdma-3.5-OFED.3.5.src.rpm	Not found	-	-	-	-
dapl-2.0.36-1.src.rpm	2.0.19-1.1	<	<	<	<
ibacm-1.0.7-1.src.rpm	Not found	-	-	-	-
ib-bonding-0.9.0-43.src.rpm	Not found	-	-	-	-

ibsim-0.5-0.1.g327c3d8.src.rpm	0.5-x	>	>	>	>
ibutils-1.5.7-0.1.g05a9d1a.src.rpm	1.5.7-1 raring	<	<	<	=
infiniband-diags-1.6.1-1.src.rpm	1.6.1-1 raring	<	<	<	=
infinipath-psm-3.1-364.1140_open.src.rpm	Not found	-	-	-	-
libcxgb3-1.3.1-1.src.rpm	1.3.1-1 quantal, raring	<	<	=	=
libcxgb4-1.2.0-1.src.rpm	Not found	-	-	-	-
libehca-1.2.2-0.1.g69e1a88.src.rpm	Not found	-	-	-	-
libibcm-1.0.5-1.src.rpm	1.0.4-1.1	<	<	<	<
libibmad-1.3.9-1.src.rpm	1.3.9-1 raring	<	<	<	=
libibumad-1.3.8-1.src.rpm	1.3.8-1 raring	<	<	<	=
libibverbs-1.1.6-1.src.rpm	1.1.6-1 quantal, raring	<	<	=	=
libipathverbs-1.2-1.src.rpm	1.2-1 precise, quantal, raring	<	=	=	=
libmlx4-1.0.4-1.src.rpm	1.0.4-1 quantal, raring	<	<	=	=
libmthca-1.0.5-0.1.gbe5eef3.src.rpm	1.0.6-1 oneiric, p, q, r	>	>	>	>
libnes-1.1.3-1.src.rpm	1.1.3-1 quantal, raring	-	-	=	=
librdmacm-1.0.16-1.src.rpm	1.0.16-1 raring	<	<	<	=
mstflint-1.4-1.23.g5c2032a.src.rpm	1.4-OFED-1.4.2-1 o, p, q, r	<	<	<	<
ofed-docs-3.5-OFED.3.5.rc6.src.rpm	1.4.2-1 o, p, q, r	<	<	<	<
ofed-scripts-3.5-OFED.3.5.rc6.src.rpm	Not found	-	-	-	-
opensm-3.3.15-1.src.rpm	3.3.15-2 raring	<	<	<	>
perftest-2.0-0.27.g2edd80a.src.rpm	1.2-OFED-1.4.2-2 l, o, p, q, r	<	<	<	<
qlvnictools-0.0.1-0.1.ge27eef7.src.rpm	0.0.1-3 raring	=	=	=	>
qperf-0.4.9-1.src.rpm	Not found	-	-	-	-
rds-tools-2.0.4-1.src.rpm	1.4.1-OFED-1.4.2-1 o, p, q, r	<	<	<	<
srptools-0.0.4-0.1.gce1f64c.src.rpm	0.0.4-1.2 o, p, q, r	=	=	=	=

3. Other packages

Packages that aren't in the OFED 3.5 tarball but are available on the OFED Downloads page
https://www.openfabrics.org/downloads/

https://www.openfabrics.org/downloads/	Ubuntu	O	P	Q	R
[openmpi-1.4.3-1.src.rpm](#)	1.4.5-1 q, r	>	>	>	>
[open-iscsi-generic-2.0-869.2.src.rpm](#)	2.0.873 q, r*	>	>	>	>
[tgt-generic-0.1-20080828.src.rpm](#)	1:1.0.7-1ubuntu3**	>	>	>	>
[libsdp-1.1.108-0.17.ga6958ef.tar.gz](#)	1.1.99-2.1	<	<	<	<
[mpitests-3.2-923.src.rpm](#)	not found	-	-	-	-
[mvapich-1.2.0-3635.src.rpm](#)	not found	-	-	-	-
[mvapich2-1.7-6.2012svn5140.src.rpm](#)	not found	-	-	-	-
[rnfs-utils-1.1.5-10.OFED.src.rpm](#)	not found	-	-	-	-
[sdpnetstat-1.60-0.3.gb6e7425.tar.gz](#)	1.60-1	=	=	=	=
[tvflash-0.9.0-0.1.ge1b50b3.tar.gz](#)	0.9.0-1	=	=	=	=

* no open-iscsi-generic package on Ubuntu. There is open-iscsi, however,
https://launchpad.net/ubuntu/+source/open-iscsi
** There is no tgt-generic package on Ubuntu. There is tgt, however,
https://launchpad.net/ubuntu/+source/tgt

4. Package description of those not available in Ubuntu

4.1 Compat-dapl
A Library for userspace access to RDMA devices using OS Agnostic DAT API v1.2. Along with the OpenFabrics kernel drivers, libdat and libdapl provides a userspace RDMA API that supports DAT 1.2 specification and IB transport extensions for atomic operations and rdma write with immediate data.
Note: dapl 2.0 is supported in Ubuntu

4.2 compat-rdma
InfiniBand "verbs", Access Layer and ULPs.
Note: Looks like a meta pacakge to install all the packages in the OFED tarball and create/configure openib.conf.

4.3 ibacm
InfiniBand Communication Manager Assistant. The ibacm daemon helps reduce the load of managing path record lookups on large InfiniBand fabrics by providing a user space implementation of what is functionally similar to an ARP cache. The use of ibacm, when properly configured, can reduce the SA packet load of a large IB cluster from $O(n^2)$ to $O(n)$. The ibacm daemon is started and normally runs in the background, user applications need not know about this daemon as long as their app uses librdmacm to handle connection bring up/tear down. The librdmacm library knows how to talk directly to the ibacm daemon to retrieve data.

4.4 ib-bonding
ib_bonding patch and modules. This package provides a bonding device which is capable of enslaving IP over InfiniBand (IPoIB) network devices.

4.5 infinipath-psm

QLogic PSM Libraries. The PSM Messaging API, or PSM API, is QLogic's low-level user-level communications interface for the Truescale family of products. PSM users are enabled with mechanisms necessary to implement higher level communications interfaces in parallel environments.

4.6 libcxgb4

Chelsio T4 RNIC Open Fabrics Userspace Library. libcxgb4 provides a device-specific userspace driver for Chelsio T4 RNICs for use with the libibverbs library.
Note: Intent to Package: http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=624252

4.7 libehca

IBM InfiniBand HCA (ehca) Userspace Driver. libehca provides a device-specific userspace driver for IBM HCAs for use with the libibverbs library.

4.8 ofed-scripts

4.9 qperf

Measure socket and RDMA performance

4.10 mpitests

This package contains a set of popular MPI benchmarking programs.

4.11 mvapich

MPI implementation over Infiniband RDMA-enabled interconnect. This is high performance and scalable MPI-1 implementation over Infiniband and RDMA-enabled interconnect. This implementation is based on MPICH and MVICH. MVAPICH is pronounced as `em-vah-pich''.

4.12 mvapich2

OSU MVAPICH2 MPI package. This is an MPI-2 implementation which includes all MPI-1 features. It is based on MPICH2 and MVICH. OSU: Ohio State U.

4.13 rnfs-utils

NFS Utils for NFS-RDMA. This package provides only the mount binary necessary to mount NFS-RDMA connections. All other NFS utilities are provided by the nfs-utils RPM (which is required by this package). The installed binary will be named mount.rnfs. This package should be unnecessary on systems with kernels newer than 2.6.22 and nfs-utils newer than 1.1.2.

	Ubuntu	O	P	Q	R
nfs-utils 1.1.2	1:1.2.6	>	>	>	>

4.14 Summary

4.14.1 What is missing
- Fabric management: ibacm, ib-bonding.
- Hardware specific user space library: infinipath-psm(QLogic Truescale), libcxgb4(Chelsio T4), and libehca(IBM).
- Utility: qperf

4.14.2 What is not the latest
Packages that aren't the latest on Ubuntu Raring:
- dapl
- libibcm
- mstflint
- ofed-docs
- perftest
- rds-tools
- libsdp

Narayan Desai packaged some for Ubuntu Precise:
https://launchpad.net/~narayan-desai/+archive/infiniband/+packages
And Roland Dreier:
https://launchpad.net/~roland.dreier/+archive/ppa

MPI related packages are removed from OFED 3.5 and listed as compatibility items.

5. Notes about Debian Infiniband Howto 2.1

- Latest Debian infiniband howto 2.1 is published on 21/Mar/2011. It's not up to date.
http://pkg-ofed.alioth.debian.org/howto/infiniband-howto.html
- Following debian infiniband howto 2.1 to install 'ofed', apt complains about dependency on mpitests (>=3.1). There is no mpitests package available in Debian. Debian Request for Package is still open since 2009: http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=551865
- apt-get install mpitests, mpitests : Depends: libopenmpi1 but it is not installable
libopenmpi1: high performance message passing library -- shared library Open MPI is a project combining technologies and resources from several other projects (FT-MPI, LA-MPI, LAM/MPI, and PACX-MPI) in order to build the best MPI library available. A completely new MPI-2 compliant implementation, Open MPI offers advantages for system and software vendors, application developers and computer science researchers.
- mpitests depends on libopenmpi1
- libopenmpi1 is available in hardy only.
- libopenmpi1 is replaced by libopenmpi1.3 in Ubuntu L, O, P, Q, R
- libopenmpi1.6 is available for Q and R.