

Using InterBase on Sun Cobalt™ Products

1 What is InterBase

InterBase is a cross-platform embedded database application. It enables your applications to scale from embedded, single user applications to applications that support enterprise demands. InterBase 6.0 is an open-source, cross-platform SQL database from Inprise Corporation. InterBase is not enabled by default on Sun Cobalt servers and appliances. InterBase offers a number of database features—triggers, stored procedures, blobs, event alerts, user-defined functions, multi-dimensional arrays, two-phase commit, referential integrity, constraints and a flexible set of transaction options.

To find more information about Interbase, go to <http://www.interbase.com> and <http://www.ibphoenix.com>

Table of Contents

What is InterBase	1
Audience	1
Applicable Products	1
Getting Started	1
Turn on the InterBase server	1
Assign a password to access the InterBase Database Server	2
Create a Database	2

1.1 Audience

The audience for this technical note are Sun Cobalt developers who want to write applications that use the InterBase database.

1.2 Applicable Products

InterBase Classic Server Version 6.0.0.x., which is open source, is included as part of the software payload on the Sun Cobalt™ RaQ 4 and RaQ XTR servers, and Qube 3 appliances. While InterBase is included as part of the software payload on Sun Cobalt™ servers, it is not turned on by default.

2 Getting Started

In order for programs to access the InterBase database, it must first be activated. The following paragraphs explain how to activate the InterBase database.

Connecting to InterBase involves three steps:

1. Turn on the InterBase database server.
2. Assign a password to access the InterBase database server.
3. Create a database.

2.1 Turn on the InterBase server

If you have not already set up the InterBase database on your server appliance, perform the following steps to gain access to the database server.

1. Log into the Sun Cobalt™ server appliance as Admin.

2. Type:

```
su -
```

The system prompts you for a password.

3. Type the password for the user admin. You now have root privileges, meaning that you can change anything on the server appliances's operating system.

4. Use your preferred text editor (such as vi, emacs or pico) to edit the file

```
/etc/inetd.conf
```

This is the configuration file for the `inetd` daemon.

5. Near or at the bottom of the file (probably the last line), there is a line that looks like:

```
# interserver stream tcp nowait.100 root /usr/sbin/tcpd
/usr/interclient/bin/interserver
```

6. Remove the hash mark (#) from in front of this line and save the file. The hash mark is a comment character and, when present, it disables the code that follows it. Removing the hash mark tells the `inetd` daemon to respond to network requests for the database.

7. Type the following command:

```
killall -HUP inetd
```

This command tells `inetd` to reread its configuration file.

2.2 Assign a password to access the InterBase Database Server

Assign a password to access the database server. The simplest way is to do this is to use the existing `sysdba` account.

1. Type the following command sequence:

```
/opt/interbase/bin/gsec -database /opt/interbase/isc4.gdb
A GSEC > prompt appears.
```

2. Type:

```
GSEC > modify sysdba -pw <newpassword>
```

This command changes the `sysdba` user password to `<newpassword>`. Choose a memorable password in place of `<newpassword>`.

3. Type `quit` to leave the `gsec` utility.

4. Type `exit` to leave the root account; you no longer need elevated privileges.

2.3 Create a Database

Before you can begin creating tables and using the database in your application, you must first create a database. You can do this through the `isql` command-line utility within InterBase, which enables you to interact with the InterBase database server.

The following steps create a database file called `test.gdb` in the directory `/home/sites/home/`. You can put the database file in any location to which the user admin can write (since you are logged in as the user

Admin). If you are working on a Sun Cobalt™ Qube 3 appliance, you might want to put the database file in /home/groups/home/.

1) At the command line, type:

```
/opt/interbase/bin/isql -u sysdba -p abc123
```

This command logs you in to the database server.

2) To create a database, type:

```
SQL> CREATE DATABASE "/home/sites/home/test.gdb";  
SQL> QUIT;
```

The InterBase database server is now ready to accept connections and can be manipulated using the sysdba account. For the database just created, you can access it using JDBC through the database URL:

```
jdbc:interbase://localhost/home/sites/home/test.gdb
```

The driver name for the InterClient driver is:

```
interbase.interclient.Driver
```

This name is also needed when using InterBase through JDBC.

To view some examples of Java code using the InterClient driver, go to:

```
/usr/interclient/examples
```

Additional documentation on InterClient can be found in the directory:

```
/usr/interclient/docs
```