The NetBSD test stack

or

What generates those reports on releng.netbsd.org?

Andreas Gustafsson, gson@NetBSD.org
### babylon5.NetBSD.org Test Run Logs

<table>
<thead>
<tr>
<th>Port</th>
<th>Version</th>
<th>NetBSD login</th>
<th>Frequency</th>
<th>Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>amd64</td>
<td>HEAD</td>
<td>gson, admins</td>
<td>ca 2x daily</td>
<td>QEMU/Anita</td>
</tr>
<tr>
<td>i386</td>
<td>HEAD</td>
<td>gson, admins</td>
<td>ca 8x daily</td>
<td>QEMU/Anita</td>
</tr>
<tr>
<td>sparc</td>
<td>HEAD</td>
<td>gson, admins</td>
<td>ca 2x daily</td>
<td>QEMU/Anita</td>
</tr>
</tbody>
</table>

### Regular individual test runs

Disclaimer: The logs are provided by individuals and are not an official service of The NetBSD Project. Frequencies are approximate and subject to the availability of the people running the tests.

### Tests against NetBSD-current

<table>
<thead>
<tr>
<th>Port</th>
<th>Version</th>
<th>NetBSD login</th>
<th>Frequency</th>
<th>Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>alpha</td>
<td>HEAD</td>
<td>martin</td>
<td>weekly</td>
<td>Digital AlphaServer DS20</td>
</tr>
<tr>
<td>evbarm</td>
<td>HEAD</td>
<td>martin</td>
<td>weekly</td>
<td>GuruPlug</td>
</tr>
<tr>
<td>i386</td>
<td>HEAD</td>
<td>gson</td>
<td>daily</td>
<td>QEMU/Anita</td>
</tr>
<tr>
<td>shark</td>
<td>HEAD</td>
<td>martin</td>
<td>weekly</td>
<td>DNARD shark</td>
</tr>
<tr>
<td>sparc64</td>
<td>HEAD</td>
<td>martin</td>
<td>weekly</td>
<td>Sun v210</td>
</tr>
<tr>
<td>xen</td>
<td>HEAD</td>
<td>bouyer</td>
<td>daily</td>
<td>XEN</td>
</tr>
</tbody>
</table>

### Tests against netbsd-7

<table>
<thead>
<tr>
<th>Port</th>
<th>Version</th>
<th>NetBSD login</th>
<th>Frequency</th>
<th>Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>amd64</td>
<td>netbsd-7</td>
<td>bouyer</td>
<td>daily</td>
<td>QEMU</td>
</tr>
<tr>
<td>i386</td>
<td>netbsd-7</td>
<td>bouyer</td>
<td>daily</td>
<td>QEMU</td>
</tr>
</tbody>
</table>
OS under test

Test cases

ATF

manual test runs

noemu

Xen

gemu

anita

other report scripts

bracket
July 2015 [details]
bracket

- Scheduled builds
- Email notification of build failures
- Automated bisection of build / install / boot failures
- HTML reports and graphs
- Treats CVS repo as a linear sequence of commits indexed by timestamp - HEAD only, no branches
- Code available on request, ask gson@
- ~5500 lines, mostly Python
Future directions:

• Email notification of ATF test failures, too

• Building every commit
  • Needs more hardware

• Would enable personal email notifications
other report scripts

NetBSD - Port alpha - Test

Run on AlphaServer DS20 (500 MHz 21264)

September 2015

(See below for previous months' data)

This NetBSD/alpha tests are currently run manually, once or twice a week. Sources are updated and build problems fixed a more automated in the future.

<table>
<thead>
<tr>
<th>Pass</th>
<th>Start</th>
<th>atf-run Results</th>
<th>End</th>
<th>Specials</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Pass Fail XFail Skip</td>
<td></td>
<td></td>
</tr>
<tr>
<td>80</td>
<td>2015-09-14 11:36:47</td>
<td>5 33 101 Report</td>
<td>2015-09-14 13:03:01</td>
<td></td>
</tr>
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</table>

Data for previous months

<table>
<thead>
<tr>
<th></th>
<th>Dec</th>
<th>Nov</th>
<th>Oct</th>
<th>Sep</th>
<th>Aug</th>
<th>Jul</th>
<th>Jun</th>
<th>May</th>
<th>Apr</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>August</td>
<td>July</td>
<td>June</td>
<td>May</td>
<td>Apr</td>
</tr>
<tr>
<td>2014</td>
<td>December</td>
<td>November</td>
<td>October</td>
<td>September</td>
<td>August</td>
<td>July</td>
<td>June</td>
<td>May</td>
<td>Apr</td>
</tr>
</tbody>
</table>
other report scripts

- Many of the reports under “individual test runs” at releng.netbsd.org/test-results.html are generated by scripts written by pgoyette@, or derivatives

- anoncvs checkout, build, test, HTML summary report

- ~1000 lines, mostly sh

- Available from pgoyette@
other report scripts

• bouyer@ runs tests of releng daily builds on Xen and qemu, including release branches

• Scripts not currently published, but bouyer@ is open to publishing them if there is interest
anita

Automated serial console interaction

- automated installs by screen scraping sysinst
- automated boot of the installed system
- automated tests by logging in and running ATF
qemu

- babylon5.netbsd.org still runs qemu 0.15 because of qemu bug #1399943 affecting sparc
- qemu 2 works fine for i386, amd64
- arm, anyone?
Xen

- Anita can run in a Xen dom0 and do automated install and test of domU
- Bracket works in the dom0, too, but builds take a long time due to lack of dom0 SMP support
Automated installs and tests on a dedicated physical PC - no emulation
noemu

- Dedicated Ethernet segment to avoid DHCP conflicts
- Test machine netboots INSTALL kernel
- sysinst scripted by anita over physical serial console (null modem cable), does network install
- Potentially useful for regression testing of drivers and auto-bisection of driver bugs
- Reports at [www.gson.org/netbsd/bugs/build/amd64-baremetal/](http://www.gson.org/netbsd/bugs/build/amd64-baremetal/)

Custom circuitry for controlling ATX power switch via serial port
ATF

- Test framework by jmmv@

- NetBSD has compile-time option for ATF successor Kyua

- Test infrastructure currently uses ATF only
  - ATF HTML reports use 2 inodes per run
  - Kyua HTML reports use ~5000 inodes per run
test cases

- /usr/src/tests
- Run them!
- Write more!
Questions?