

## A Generic Service Control Interface for Toggling a Daemon

### 1 Overview

Sun Cobalt™ has written a generic service control interface for toggling a daemon or daemon set on the Sun Cobalt™ RaQ 3, 4, and XTR server families.

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#### 1.1 Audience

This Technical Note is intended for application developers creating software to be used with Sun Cobalt RaQ 3, 4, or XTR servers. For information on creating package files, go to <http://developer.cobalt.com/resources/technotes.php>

#### 1.2 What is a Daemon?

The term *daemon* refers to a specific type of program or agent designed to work in the background. For example, you can enable or disable (toggle) the DNS daemon from the Control Panel.

### 2 Code for the Installation Script

This service assumes that you have constructed a `.pkg` file for the example software service named *YOURCO*.

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**Note**

This utility does not interfere with any Sun Cobalt OS updates.

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Add the following bash code to the `.pkg` installation script:

```
create YOURCO cgi space
mkdir /usr/admserv/cgi-bin/.YOURCO

# restrict access to admin-only
echo "order allow,deny" > \
/usr/admserv/cgi-bin/.YOURCO/.htaccess
echo "allow from all" >> \
/usr/admserv/cgi-bin/.YOURCO/.htaccess
echo "require user admin" >> \
/usr/admserv/cgi-bin/.YOURCO/.htaccess
echo "Authname CobaltRaQ" >> \
/usr/admserv/cgi-bin/.YOURCO/.htaccess
echo "Authtype Basic" >> \
```

```
/usr/admserv/cgi-bin/.YOURCO/.htaccess
```

```
# copy the cgi in place
/bin/cp $UPGRADE_DIR/YOURCO.cgi \
/usr/admserv/cgi-bin/.YOURCO/yourco.cgi
/bin/chmod +x \
usr/admserv/cgi-bin/.YOURCO/yourco.cgi
```

The attached script is `yourco.cgi`, which is generic for any service; see “Attached CGI Script” on page 2. Be sure to include `yourco.cgi` in your package root. Your service is controlled by an `init` script:

```
/etc/rc.d/init.d/YOURCO
```

This script must be compatible with the utility `chkconfig`; for information on `chkconfig`, type:

```
man chkconfig
```

This compatibility involves some comments in the header of the script. For example, the DNS server named includes the following header in its `init` script:

```
#!/bin/sh
#
# named
# This shell script takes care of starting and stopping
# named (BIND DNS server).
#
# chkconfig: 345 55 45
# description: named (BIND) is a Domain Name Server (DNS) \
# that is used to resolve host names to IP addresses.
# probe: true
```

`chkconfig` sees that `named` expects to run in `init` states 3, 4 and 5, with start priority 55 and stop priority 45. The attached CGI script passes `restart` and `stop` arguments to the `init` script; ensure that both work correctly.

At the beginning of the attached CGI script, you can configure the user interface service name, and the user interface help text message.

The `.pkg packing_list` file must hyperlink to the new CGI for convenient access. Use the relative link `/cgi-bin/.YOURCO/yourco.cgi`. Refer to the `.pkg` file documentation for the exact syntax to use in the `packing_list` file. See

<ftp://ftp.cobalt.com/pub/developer/TechNotes/DTN-2.0.n.pdf> where *n* is the most recently updated technical note.

### 3 Attached CGI Script

```
##### globals ##
$service = 'YOURCO'; # corresponds with the /etc/rc.d/init.d/ file
$service_name = 'Your Company, Your Product'; # UI title
$service_help = "Check this box and save changes to enable $service_name.
Uncheck to disable $service_name.";
```

```
$iam = '/cgi-bin/.YOURCO/yourco.cgi'; # cgi script name
#####

# catch env variables
$feed = $ENV{'QUERY_STRING'};

if ($feed =~ /ON/) {
    # enable services
    system("/sbin/chkconfig --add $service > /dev/null 2>&1");
    system("/etc/rc.d/init.d/$service restart > /dev/null 2>&1");
} elsif ($feed =~ /SUBMIT/) {
    # disable services
    system("/sbin/chkconfig --del $service > /dev/null 2>&1");
    system("/etc/rc.d/init.d/$service stop > /dev/null 2>&1");
}

# test whether the service is enabled
$service_enabled = 1;
open(CHKCFG, "/sbin/chkconfig --list |");
while(<CHKCFG>) { $service_enabled = 0 if (/^$service/ && !/:on/); }
close(CHKCFG);

# render form
if($service_enabled) {
    $checked = ' CHECKED';
}

print <<EOF;
Content-type: text/html

<HTML>
<HEAD>
<DEFANGED_META HTTP-EQUIV="expires" CONTENT="0">
<DEFANGED_SCRIPT LANGUAGE="javascript">

<!-- hide
    top.showInfo( '' );

    var serviceHelp='$service_help';

    function trySubmit() {
        // get around of a bug on Navigator 3 on Win95/NT
        if( top.wizard==null || ( navigator.appName.indexOf( 'Netscape'
```

```
)== -1 || navigator.appVersion.indexOf( 'Win' )== -1 ||
navigator.appVersion.charAt( 0 )!='3' ) ) {
    top.showInfo( '<IMG SRC=/.cobalt/images/saving> Saving
$service_name configuration. This will take a moment...', 0 );
}
return true;
}
// hide end -->

</SCRIPT>
</HEAD>

<BODY BGCOLOR="#FFFFFF">

<FORM ACTION="$iam" METHOD="GET" DEFANGED_OnSubmit="return
trySubmit();" >
<CENTER>
<P>
<TABLE BORDER="1" CELLSPACING="0" WIDTH="550">
    <TR>
        <TD COLSPAN="3" BGCOLOR="#6666CC">
            <P ALIGN="CENTER"><FONT
COLOR="#FFFFFF"><B>$service_name Service Settings</B></FONT>
        </TD>
        <TD WIDTH="26">
            <CENTER><A HREF="DEFANGED_javascript: top.showInfo(
serviceHelp );" DEFANGED_OnMouseOver="status='Help'; top.showInfo(
serviceHelp ); return true;"><IMG SRC="/.cobalt/images/
smallest_help_but" ALIGN="BOTTOM" BORDER="0"></A></CENTER>
        </TD>
        <TD WIDTH="26">
            <CENTER>
            <P><INPUT TYPE="CHECKBOX" NAME="OFF"
VALUE="ON" $checked>
            </CENTER>
        </TD>
        <TD WIDTH="498"><FONT COLOR=#FFFFFF>&nbsp;&nbsp;&nbsp;</FONT>
        <!-- optional service icon <IMG SRC="/.cobalt/images/
telnet_icon_small" ALIGN="BOTTOM" BORDER="0" ALIGN="ABSCENTER" WIDTH=20
HEIGHT=20> -->
        <FONT COLOR=#FFFFFF>&nbsp;&nbsp;&nbsp;</FONT>$service_name
    </TD>
</TR>
</TABLE>
</BODY>
```



```
</TR>

</TABLE>

<BR>
<A HREF="DEFANGED_javascript: if( trySubmit() ) document.forms[ 0
].submit();" DEFANGED_OnMouseOver="status='Save Changes'; return
true;"><IMG SRC="/.cobalt/images/save_but" BORDER=0></A>

<INPUT TYPE="HIDDEN" NAME="SUBMIT" VALUE="YUP">
</FORM>

</BODY>
</HTML>
EOF
```