

LAMBDA Boxes:

CFML Applications on the Cheap

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Background

- **Me**
 - Started with ColdFusion 4.0 on Solaris
 - Actively running BlueDragon 6.1 on Linux
- **Terminology**
 - CFML – ColdFusion Markup Language
 - CFMX – Macromedia ColdFusion MX
 - BD – New Atlanta BlueDragon
- **Assumptions**
 - You have some background with Linux/Unix
 - Hopefully have run CFMX or BD on Linux/Unix

Not LAMB, LAMBDA “λ”

- **L**inux (RedHat, SuSE, Gentoo)
- **A**pache (1.3.x or 2.0.x)
- **M**ySQL (4.x) or PostgreSQL (7.4)
- **B**lue**D**ragon 6.1 (or 6.2 when released)
- **A**pplication

BlueDragon 6.1

- **Three Flavors**

- **Server (aka Free Server)**

- Database: MySQL or PostgreSQL
 - Web Server: Apache

- **Server JX**

- Database: SQL Server, Oracle, JDBC
 - Web Server: Apache, iPlanet/SunONE
 - Encrypted distributable applications/templates
 - JSP Support, JSessionID

- **J2EE**

Apache & BlueDragon

- BD installer does not allow you to specify an Apache install directory
 - Need to create a symbolic link from your installation of Apache to **/usr/local/apache** before installing BlueDragon

```
# ln -s /opt/www/apache /usr/local/apache
```

- See BD Installation Guide section 3.7.5 for more details

Install BlueDragon

- BD installer does not allow you to specify a user to run BD as, runs as **root**
- New Atlanta has identified this bug #1034
 - First install BlueDragon

```
# ./BlueDragon_Server_61-Linux.sh -i console
```

- Work around is to run **bd-postinstall.sh**
 - bd-postinstall allows you to specify the user (if necessary, creates it) and changes the ownership on the BlueDragon install
 - Need to be sure **httpd -v** can be run as the user specified

bd-postinstall.sh

```
#!/bin/sh
echo -e "\nBlueDragon Post Installation"
echo -e "-----\n"
echo -n "BlueDragon installation directory: "
read bdinstalldir

echo "Stopping BlueDragon Server..."
$bdinstalldir/bin/StopBlueDragon.sh

echo -n "Create a user account for BlueDragon [y/n]? "
read createaccount

echo -n "User Account to run BlueDragon as: "
read bduser

if [ $createaccount = "y" ]
then
    echo "Creating user: $bduser"
    useradd -d "$bdinstalldir" -c "BlueDragon CFML Server" \
        -s /bin/sh -M $bduser
    passwd -l $bduser
fi

echo "Changing ownership on $bdinstalldir"
chown -R $bduser.$bduser $bdinstalldir
exit 0
```

/etc/init.d/BlueDragon_Server

- Modify **/etc/init.d/BlueDragon_Server** to start as specified user

```
#!/bin/sh
# Startup script for the BlueDragon Server
. /etc/rc.d/init.d/functions

bdstart=/opt/bluedragon-6.1/bin/StartBlueDragon.sh
bdstop=/opt/bluedragon-6.1/bin/StopBlueDragon.sh
bduser=bdragon

prog="BlueDragon Server"
start() {
    echo -n "Starting $prog: ";
    daemon --user=$bduser $bdstart ;
    echo ; RETVAL=$? ; return $RETVAL ; }
stop() {
    echo -n "Stopping $prog: ";
    daemon --user=$bduser $bdstop ;
    echo ; RETVAL=$? ; return $RETVAL ; }

case "$1" in
    start) start& ;;
    stop) stop ;;
    restart) stop; start ;;
    *) echo $"Usage: $prog {start|stop|restart}"
       exit 1
esac
```


mod_servletexec.so

- Apache 1.3.x compiled with mod_ssl, need to get mod_servletexec.so compiled with EAPI
 - ftp://ftp.newatlanta.com/public/bluedragon/6_1/server/mod_servletexec.so-eapi

httpd.conf

- **httpd.conf** lines for BlueDragon
 - See ServletExec 4.2 Installation Guide Section 6.5.3

```
LoadModule servletexec_module libexec/mod_servletexec.so
AddModule mod_servletexec.c

ServletExecInstances default 127.0.0.1:9999
ServletExecAliases default /servlet servlet .jsp .cfc .cfm .cfml

<Location /servlet>
    SetHandler servlet-exec
</Location>

<Location servlet>
    SetHandler servlet-exec
</Location>

AddHandler servlet-exec jsp
AddHandler servlet-exec cfc
AddHandler servlet-exec cfm
AddHandler servlet-exec cfml
```

MySQL & BD

- BlueDragon does not ship MySQL JDBC drivers, need to download from MySQL
 - <http://dev.mysql.com/downloads/connector/j/3.0.html>
 - Copy and rename **mysql-connector-java-3.0.16-production-bin.jar** to **{bluedragon_install}/lib/mysql.jar**
 - Restart BlueDragon
- NewAtlanta's FAQ entry on MySQL
 - http://www.newatlanta.com/biz/c/products/bluedragon/self_help/faq/detail?faqId=216

Uninstalling BlueDragon

- Uninstaller removes all files
 - Backup wwwroot, customtags (good idea)
- If you install into a directory other than the default, need to remove **/usr/local/NewAtlanta/.registry** to reinstall

CFMX Compatibility

- **BlueDragon is designed to be highly compatible with CFMX**
 - **Unsupported Tags**
 - cfreport, cfchart, cfgrid, cftrace, cflogin
 - **New Tags**
 - cfimage, cfimap, cfpause, cfconstructor, cfdebugger
- There are many other subtle differences which are documented in BD CFML Compatibility Guide

Things to look out for

- **Dynamically Named Variables**

- BD will produce an error with this code

```
<cfset hold = "firstName" />  
<cfset "#hold#" = "Dilbert" />  
<cfoutput>#firstName#</cfoutput>
```

- Fix

```
<cfset hold = "firstName" />  
<cfset "variables.#hold#" = "Dilbert" />  
<cfoutput>#firstName#</cfoutput>
```

- **Whitespace Compression**

- BD is much more gung-ho about eliminating whitespace

Things to look out for (cont'd)

- **CFForm**
 - Javascript validation is broken
- **Client Variables**
 - Using a datasource, BD only creates one table (bdclientdata) and the cfdata column is not plain text
- **Application.cfm**
 - BD will only look up to the webroot
- **CGI.Path_Info**
 - BD properly implemented CGI gateway, should use **CGI.Script_Name**

Fusebox & BD

- **Fusebox 3.0**
 - Works without modification
- **Fusebox 4.0**
 - Need corefiles 4.0.4+, contain patches to run on BD
- **Fusebox 4.1**
 - Two issues on BD 6.1
 - Exception Handling
 - Consuming webservices

Getting BD Updates

- NewAtlanta publishes updates/patches to their FTP server
 - ftp://ftp.newatlanta.com/public/bluedragon/6_1/hotfix/
- Highly recommend installing November 2004 hotfix set
- Be sure to follow **ReadMe.txt**

BlueDragon's Future

- NewAtlanta should be releasing BD 6.2 soon (currently rc1)
 - Features to match the way CFMX 6.1 does stuff
 - CFHTTP (including SSL support)
 - CFMAIL
 - CFTRACE
 - try/catch in CFSCRIPT
 - CFLOGIN, CFLOGINUSER, CFLOGOUT
 - Additional fixes and .NET version
- **BD 7.0? Who knows....**

Resources

- **BlueDragon Interest List Archive**
 - http://www.newatlanta.com/products/bluedragon/self_help/archive_search/
- **BlueDragon-Blog – Charlie Arehart**
 - <http://bluedragon.blog-city.com/>
- **Securing Apache Step by Step**
 - http://www.cgisecurity.com/lib/ryan_barnett_gcux_practical.html
- **MySQL Documentation**
 - <http://dev.mysql.com/doc/>
- **Practical PostgreSQL**
 - <http://www.commandprompt.com/ppbook/>

Thanks

- Q & A
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