

BSD Certification Group: A Case Study in Open Source Certification

Dru Lavigne
Chair, BSD Certification Group Inc.

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Outline

Certification 101

Bridging the Open Source / Certification /
Academic Gap

BSD Certification Group (BSDCG)

BSDA (BSD Associate)

BSDP (BSD Professional)

Works in Progress

How You Can Help

Certification 101

Popularized in mid-90s by Novell, Microsoft, Cisco

Associated with braindumps, paper MCSEs

Very expensive to launch—domain of large, established companies with alternate revenue streams who can afford to wait ~2 yrs before certification program starts making money

Certification 101

Traditional exam delivery costs: \$75,000 USD annually to participate, extra fees for changing exam

Monopoly on exam delivery (VUE/Prometric) --this is just starting to change

Exam delivery software is proprietary, currently no open source solutions exist

Certification 101

LPI started out as commercial/community based, current focus is commercial

Other Certification bodies: Zend for PHP, EnterpriseDB for PostgreSQL, Canonical for Ubuntu

Other open source communities (Apache, Gnome) have expressed interest

Cost, time, and expertise are huge barriers

Gap: Open Source

Strengths: if you take away the “code”, what are you left with?

Built-in mentorship opportunities for learning real-world skills

Community of like-minded individuals

Networking with others of differing skill-levels from across the globe in area of interest

Gap: Open Source

Weaknesses: provide a good measurement of a community's maturity level

Focus is on code and developers, while other community skills and resources are ignored

Processes and culture vary widely between communities

Documentation is not considered important, written processes and training materials are virtually non-existent

Gap: Certification

Strengths: provide a good measure of the quality/goals of a certification program

Assist employers by assessing a published set of skills

Increase the recognition and use of a software product

Provide job seekers with an advantage over other applicants

Gap: Certification

Weaknesses: too many to fit on one slide :-)

Cost: to exam taker and certifying organization

Monopoly on exam delivery solutions (all proprietary)

Rarely available in languages other than English

Difficult to keep exam content secure

Training is often boot-camp style to pass the exam, not learn real-world skills or understanding

Gap: Academia

Strengths:

Time to learn understanding and skills in a larger context

Institution must follow established guidelines for student assessment

Institution provides reputation

Gap: Academia

Weaknesses: depend on type of program on type of institution

Knowledge may be more theoretical than practical

Program may not include networking/placements with potential employers

Institution may not have a global reputation

Bridging the Gap

Benefits to Open Source Community:

Increased exposure and reputation

New contributing members with varied skillsets

Reason to document processes and how to use the software

Bridging the Gap

Benefits to Academic Institution: for both undergraduate and thesis programs

Increased global exposure and reputation

Introduces students to potential employers and colleagues

Provides students with hard and soft skills in a non-artificial environment

Opens research and commercialization opportunities

BSDCG

Registered non-profit incorporated in the state of New Jersey in 2005

Mission is to create and maintain certifications to assess skills of BSD system administrators

Community based with a legal governance infrastructure

Relies on open source methodologies and volunteer contributions of time and money

BSDCG

Internal Structure:

5 Board of Directors (voted in for a term)

21 BSDCG members with voting rights (volunteer to join)

5 Advisory Board members (invited)

9 SMEs (subject matter experts)

1 (paid) psychometrician

Network of trusted exam proctors

BSDCG

Community Structure:

~700 subscribers to 2 mailing lists

147 members of 2 LinkedIn groups

~90 translators for 22 languages

Donated hardware, bandwidth, system administration, and web development

Ongoing relationships with other certification bodies and educational institutions

BSDCG

Community Based:

Remains separate from, but supports the other BSD projects and Foundations

Works closely with employers and sysadmins to keep exam current and “real”

Advocates the integration of exam objectives into existing diploma programs (rather than bootcamp style learning)

BSDCG

Psychometrically Valid:

Ensures exam is fair, unbiased, and understandable, even if English is not your first language

SMEs who are working sysadmins keep the exam practical

Use of ongoing metrics keeps questions current and spots anomalies

BSDCG

Exam goals:

Globally affordable (\$75 USD)



Available in local community, and where warranted, in local language

Encourage local study groups and creation of training materials (both open and commercial)

BSDA

Process:

Job Task Analysis (JTA): April - July 2005

Exam Requirements published: October 2005

Beta Period: May - August 2007

Angoff Session: January 2008

Available Since: February 2008

BSDA

Exam:

Target audience is junior sysadmin with 6 months experience

Covers 7 knowledge domains

Scored for 100 questions

Passing score is 500 of scale between 200 and 700

BSDA

Venue:

Community based: exam events hosted by conferences, user groups, employers, and schools

Slowly building a network of trusted testing centers who promote BSD (FreeBSD Brasil, Systemics Poland)

BSDA

BSDA Candidates:

~1300 BSDCG IDs issued (residing in 104 countries)

121 have taken exam (residing in 16 countries)

78 have passed exam (some not scored yet)

average score: 68%

BSDP

Process:

JTA currently open (and waiting your input)

Expected time frame between Exam Requirements through Beta Period to Angoff Session is 9-12 months

Exam delivery expected to be virtualized lab-based environment

Works in Progress

Improved Availability:

Building network of trusted testing centers

Working towards an online solution in a proctored environment (preferably open source)

Works in Progress

Study Materials:

Wiki is available for user generated content

Exam objectives translated to more languages
(currently English, Russian, Spanish)

Creation of study labs

Formation of study groups

Works in Progress

Sponsorship Suggestions:

Fund to assist proctors' travel expenses

Purchase of DVD helps to fund creation of BSDP
(\$9,400 in psychometric costs)

Fund to assist exam candidates who can't afford
exam or travel costs to exam

Startup costs for an online test delivery solution

How You Can Help

Take the JTA!

Spread the word—tell your school, employer, user group, write an article, blog, twitter, etc.

Read our publications

Take the exam

Donate time (assist with study materials, marketing, etc.)

Donate \$ (e.g. purchase study DVD)

How You Can Help

Host or proctor an exam event

Become an SME

Help us develop an open source exam delivery solution

Additional Information

JTA:

http://surveys.bsdcertification.org/phpESP/public/survey.php?name=BSDP01_en

<http://www.bsdcertification.org>

<https://register.bsdcertification.org/register/events>

chair@bsdcertification.org