

# BSD Certification: Using Open Source and Education to Accelerate Technology Transfer

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# Outline

## **Part 1: The Big Picture**

Open Source Strengths & Weaknesses

Certification Overview

Academic Environments

How all 3 can Benefit from Each Other

# Outline

## **Part 2: A Specific Example**

BSD Certification Group (BSDCG)

BSDA (BSD Associate)

BSDP (BSD Professional)

Works in Progress

How You Can Help

# Disclaimer

The focus of this talk is “principles”, not “software”.

The perspective is to examine how open source communities and academic institutions can benefit from each other in order to:

- provide value to students
- stimulate the local economy
- and benefit the global community.

# 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.

# 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.

# Certification

**Strengths:** provide a good measurement 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.

# 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.



# Academics

## **Strengths:**

Time to learn understanding and skills in a larger context.

Institution must follow established guidelines for student assessment.

Institution provides reputation.

# Academics

**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.

# Potential 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.

# Potential 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

## **Overview:**

Community-based with a legal governance infrastructure (registered non-profit)

Applies open source processes to certification

Maintains 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 integrating 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

Encourage trainers and training materials



# 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)

# BSDP

## **Process:**

JTA launched in August 2009 (ongoing)

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

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

<http://www.bsdcertification.org>

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

@bsdevents on Twitter

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