Certification, Conformance and Standardization: Do they still matter?

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Standards Strategy

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Agenda

- UNIX03 Success
- Standardization Challenges
- State of Standardization
- Missed Opportuntities
- Future Opportunities
- What's at risk?
- New approaches
- Conclusions

Single UNIX Specification, UNIX03

- Merged specifications finally consolidate a decade long standards competition.
- Provides level playing field for vendor competition and customer benefit.
- Wide availability in marketplace reduces opportunities for differentiation, conformance becomes “assumed”.
- Lost headway as industry moved up the computing stack.

Standardization Challenges

- Interoperability assumes more importance as all devices get connected.
- Creative tension between innovation, competition and standardization is complex.
- Internet and telecom convergence potentially disruptive.
- Delayed market creation and development is typical outcome.

Why bother with standardization?

- Suppliers – business ROI
- Customers – vendor leverage, business advantage
- Standardization bodies – continued existence (their business)

State of Standardization

- Victim of its own succcess?
- Numerous successful *de jure* and *de facto* standards, some with certifications, most not.
- Standardization bodies include formal and informal; consortia and trade organizaitons have recently proliferated.
- Competing standardization activities and standards bodies.

Standards Successes

- POSIX and merged specification
- Internet, transaction protocols
  - TCP/IP
  - smtp, nntp, http, etc.
  - Spawned original open source movement
- Network transports
- WWW
- Multimedia formats
- Java

Missed Opportunities

- OSI and Ada
- Security
- UNIX failed to standardize system administration, layers above platform, ABIs, clusters.
- Linux as an open source POSIX compliant system.
- Intellectual Property entanglements threatening continued progress.

Future Opportunities

- Instant Messaging infrastructures
- Web services
- Pervasive computing
- Ultrawideband wireless
- Adaptive computing/automatic resource provisioning

Risks?

- Timing of standardization activity crucial to both preserve innovation and competition without preempting or stagnating technology.
- Essential requirement for standardization is that it serves a business purpose.

New Approaches

- Multitude of standardization venues needed
  - Formal SSOs, consortia, trade organizations
- Java Community Process structure of specification-reference implementation-compatibility test suite.
- Combine strengths of open source with customer benefits of standardization, e.g. open standards.

New Approaches – Action Items

- Evaluate all elements of the standardization process (e.g. role of consortia, open source, JCP model, etc.).
- Address intellectual property issues – royalty free preferred, but RAND with upfront licensing terms acceptable.

Conclusion

- Evaluate standardization processes; include new drivers such as open source, intellectual property impacts, and market dynamics to “impedance matching” markets, technology and business needs.

- Continued standardization successes requires flexible and evolving processes which recognize motivations of participants.

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