OPEN SOURCE LANGUAGE AUTOMATION PRIMER:

EXECUTIVE SUMMARY

ActiveState®

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MESSAGE FROM
BART COPELAND, CEO & PRESIDENT

> **Polyglot is killing the enterprise.** There is a void in the open source ecosystem when it comes to languages. And keeping open source language builds up to date at scale is virtually impossible."
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> **Bart Copeland, CEO & President, ActiveState**

After more than 20 years building open source languages for 97% of the Fortune 1000 and millions of developers, we've learned enterprises can't gauge the risk of their polyglot environments and are taxed with developers wasting time retrofitting languages.

The first building block of most software applications is an open source language. Yet the industry continues to be plagued by disparate tools, manual build engineering processes and lack of visibility of open source languages in production. In fact, our annual developer survey for 2018 reported that 67% of developers wouldn't add a language because of the associated hassles and risks.

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As the leader in Open Source Language Automation, ActiveState pledges the following:

> As a member of the open source languages industry, ActiveState sees the increased usage and complexity of open source tech stacks in agile development, DevOps and run-time application quality, in environments in which people and applications are increasingly dispersed yet connected, as major megatrends impacting our industry. We believe the open source language industry has the opportunity to automate and manage the certification, build, deployment and operational management of open source to help organizations accelerate their velocity of delivering secure innovative applications in our increasingly connected yet fractured industry. To advance our industry, ActiveState pledges to offer a new framework by which open source languages can be built, certified, deployed and resolved continuously and automatically to help organizations leverage their polyglot environments and deliver innovative applications to differentiate against competitors and drive desired business outcomes. By supporting Open Source Language Automation, ActiveState will help companies decrease risk to deploy applications across polyglot environments, enable engineering teams to deploy robust applications with speed and security, and free up developers to spend time on high-value work."

As we look ahead we will be working with the industry to build the solutions and awareness that will drive change in how we build, certify and resolve open source languages. We look forward to collaborating with you on this important initiative to benefit our open source industry. This is the advent of Open Source Language Automation.

Bart Copeland
CEO & President, ActiveState

EXECUTIVE
SUMMARY

The Advent of Open Source Language Automation

ActiveState has created a new category, Open Source Language Automation. The new category will enable organizations to automatically build their language distributions, automatically enforce their open source licensing policies, and automatically resolve dependencies, vulnerabilities and other discrepancies as they arise.

The **blueprint** to implement Open Source Language Automation comprises four phases: define policies, centralize dependencies, automate builds, deploy and manage artifacts.

ActiveState is leveraging learnings from its 20 year trajectory in open source to: i) enable organizations around the world with the means to implement Open Source Language Automation; ii) and optimize the value organizations derive from open source languages.

Through Open Source Language Automation ActiveState aims to address a marketplace void and resolve the challenges enterprises and developers face with polyglot environments. ActiveState will offer continuous, automatic open source language builds at scale.

This Executive Summary document comprises industry mega-trends, industry insights and the means to optimize the value stream of open source languages. Together these subjects serve as a primer to Open Source Language Automation.

Industry Mega-Trends

ActiveState has observed eight key industry mega-trends in the advent of Open Source Language Automation. Each of these eight trends serves to increase the adoption and results in more challenges of managing polyglot environments. The trends also illustrate that if "software is eating the world" open source is what builds the software. Lastly, the industry mega-trends depict that the tension between speed and security is increasing.

The eight industry mega-trends identified by ActiveState are:

1. Innovation is driven by open source, but its proliferation creates code management challenges.

2. The power shift to developers in the enterprise creates language/tech stack variants.

3. Data and the desire for analytics are exploding in the enterprise.

4. Multi and hybrid cloud strategies are driving a three-fold proliferation of tech stacks, management variants and challenges.

5. The rate of change in design standards produces more enterprise cloud management complexity.

6. Enterprise CEOs and executives are driving digital transformation to keep pace and lead in their markets.

7. Smart data privacy & security policies necessitate an understanding of what's in the code.

8. Agile development and DevOps is accelerating, this drives complexity in the management of tech stacks and reduces runtime application quality.

Industry Insights

After working closely with enterprises to build engineer open source language distributions, ActiveState is sharing its five insights to provide the opportunity for building value from open source languages.

The five industry insights identified by ActiveState are:

1. Companies need to automate their application lifecycle to overcome the issues with open source DevOps lifecycle management.

2. Enterprises need to invest in tools and processes for application delivery to resolve gaps in awareness of time wasted managing open source languages.

3. Resolve, Own, Accept, Mitigate (ROAM) should be implemented to address the differing goals of application security (control, risk management) and development (speed, agility and leveraging open source).

4. Containers and serverless architectures actually make open source code runtime management worse.

5. AI proliferation has exacerbated the open source code runtime management challenge.

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Value Stream Creation

ActiveState created three pillars upon which organizations could measure a baseline value of their open source languages and then build value against a benchmark. These pillars will also enable enterprises to gauge risk and increase developer velocity. Together the three pillars are the foundation for realizing the benefits of Open Source Language Automation, the means to optimize the value stream of open source languages.

The three pillars are:

1. Enterprises should create an **application development and delivery lifecycle** approach specific to open source runtimes.

2. Enterprises should create an **application deployment and management** approach specific to open source runtimes.

3. Enterprise should employ **open source value stream management.**

Next Steps

If you're interested in reading the next part in the series "Open Source Language Automation Primer: Industry Mega-Trends" **please click here.**

The next piece details each of the eight industry mega-trends ActiveState has identified in the advent of Open Source Language Automation.

Build, Certify, Resolve…
Automatically and Continuously.

Contact us to find out why 97% of
Fortune 1000 use our software:

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ABOUT ACTIVESTATE

ActiveState helps enterprises scale securely with open source languages and gives developers the kinds of tools they love to use.
More than two million developers and 97% of Fortune 1000 companies use ActiveState open source language builds including CA, Cisco, Pepsi, Lockheed Martin and NASA. To learn more, visit activestate.com