

A large crowd of zombies, depicted as pale, featureless figures, is walking down a city street. The scene is bathed in a warm, orange-red light, suggesting a sunset or sunrise. In the background, several cars are visible, some appearing to be stuck in traffic. The overall atmosphere is one of a chaotic, post-apocalyptic urban environment.

Walking Dead Past EOL: Avoiding the Open Source Zombie Apocalypse

Introductions



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Housekeeping

- We will host polls throughout the webinar
- We will be emailing everyone the slides after the webinar
- Submit your questions in the Q&A tab and we will answer at the end

Agenda

- So you've got a zombie application
- How zombie apps happen
- What you can do about it

Inheriting a Zombie Application

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The “things aren’t so bad” stage



Zombie apps are past End of Life (EoL)

- The Open Source Community defines dates where language “Active Support” and “Security Patches” end.
- After this date, only new versions are updated, old ones continue to fall behind.
- Exploits and vulnerabilities are no longer disclosed on EoL versions, even if the risks are still applicable. Scanning tools don’t know what they don’t know!
- The app maintainer/SME responsible may leave and no one else understands the accumulation of risk and maintenance tasks.

Python EoL Dates

Release	Released	Active Support	Security Support	Latest
3.12	5 months ago (02 Oct 2023)	Ends in 1 year (02 Apr 2025)	Ends in 4 years and 7 months (02 Oct 2028)	3.12.2 (06 Feb 2024)
3.11	1 year and 4 months ago (24 Oct 2022)	Ends in 3 weeks and 4 days (01 Apr 2024)	Ends in 3 years and 7 months (24 Oct 2027)	3.11.8 (06 Feb 2024)
3.10	2 years and 5 months ago (04 Oct 2021)	Ended 11 months ago (05 Apr 2023)	Ends in 2 years and 7 months (04 Oct 2026)	3.10.13 (24 Aug 2023)
3.9	3 years and 5 months ago (05 Oct 2020)	Ended 1 year and 9 months ago (17 May 2022)	Ends in 1 year and 7 months (05 Oct 2025)	3.9.18 (24 Aug 2023)
3.8	4 years ago (14 Oct 2019)	Ended 2 years and 10 months ago (03 May 2021)	Ends in 7 months (14 Oct 2024)	3.8.18 (24 Aug 2023)
3.7	5 years and 8 months ago (26 Jun 2018)	Ended 3 years and 8 months ago (27 Jun 2020)	Ended 8 months ago (27 Jun 2023)	3.7.17 (05 Jun 2023)
3.6	7 years ago (22 Dec 2016)	Ended 5 years ago (24 Dec 2018)	Ended 2 years ago (23 Dec 2021)	3.6.15 (03 Sep 2021)

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Senior app maintainer on their last day



Managers handing off to jr. developers



Poll

What is your current level of observability of zombie apps?

Check one:

- None - Not aware and can't track
- Low - Aware but not sure of scale or where they're deployed
- Medium - Understand which apps and where, but haven't prioritized
- High - Actively tracking and prioritizing
- Don't know

Maintaining Zombie Apps

Getting stuck in EoL

How did a Zombie get here?

- Started with the version that was current at the time
- The sponsor/app owner are gone
- Merger & Acquisition activity
- Lack of controls on what is installed and where
- Other software requires the Zombie in order to work

Reasons Zombies stick around

- Application still works- “if it ain’t broke don’t fix it”
- Tech Debt cost vs. Innovation cost
- Risk of breaking the build/app

It moves faster than you think...

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Poll

What's stopping you
from upgrading
zombie apps?

Check all that apply:

- Application still works
- Opportunity cost - rather work on new features
- Risk of breakage
- Not enough resources
- Not concerned with EOL risk
- Other (let us know!)

What Are Your Options?

Zombie Survival Strategies



- Do nothing, pass the buck
- Find it and remove it



- Extended Support
- Update/Migrate

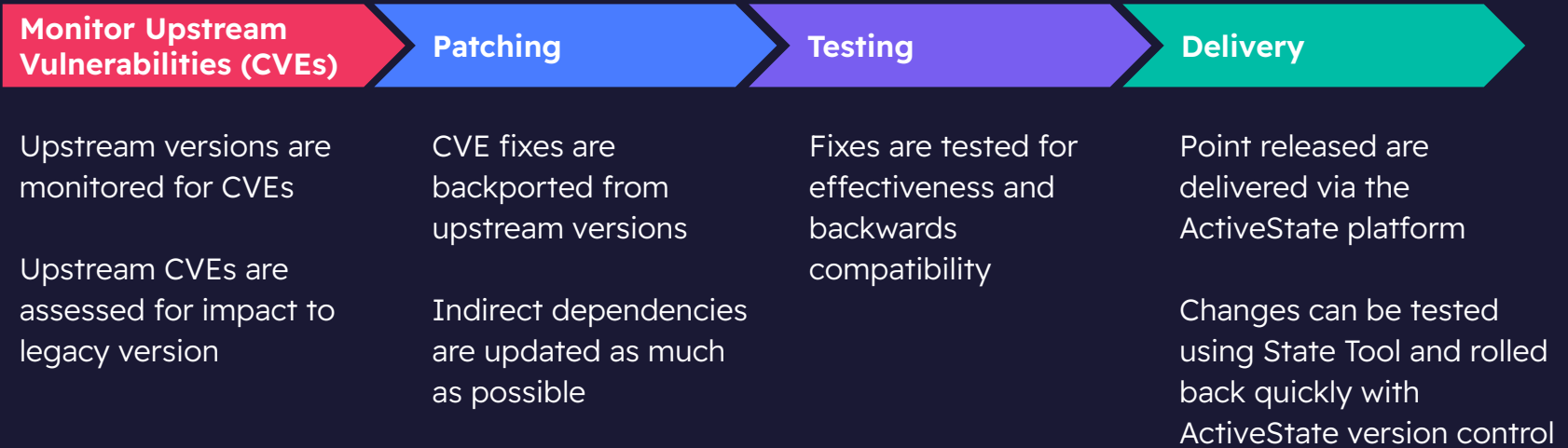
Extended Support (Python 2.7.18.x)



ActiveState maintains Extended Support Patches for EoL

- This provides vulnerability and compatibility patches to our Enterprise tier platform Customers.
- Commercial vendored support for Python 2.7.18 dependencies. Offerings available for Python 3.7 and some Perl versions (5.20+).
- Allows a least-worst option while determining a long term plan.
- But, don't forget you still have a zombie!

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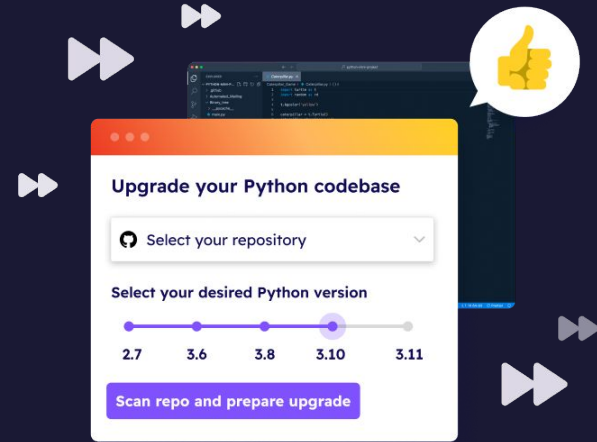


How it works

Why Upgrade Now?

Versioning Freedom

- The best time to start is years ago.
- The second best time is now!
- The longer you wait the more risks and difficulties accumulate.
- Your developers are maintaining rather than innovating.
- The ActiveState Platform allows for seamless dependency updates.
- If your first party application code is the blocker- contact us!



Supply Chain Attacks are Skyrocketing



Outdated software introduces security risk & kills productivity



Secured Applications

Newly developed apps or those that have **some protection** from open source vulnerabilities

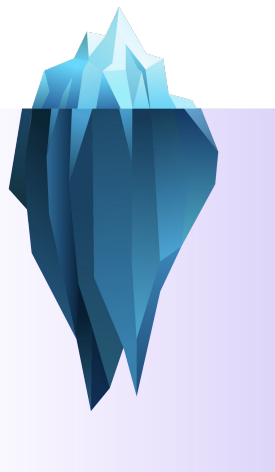
~10-15%
of Apps



Application Security Gap

Previously developed apps that are **not tested** for vulnerabilities or that are **difficult to secure**

~85-90%
of Apps



Threat Actors
Have Capitalized
On This Weakness



(Nov 2021)
90%+ cloud environments impacted



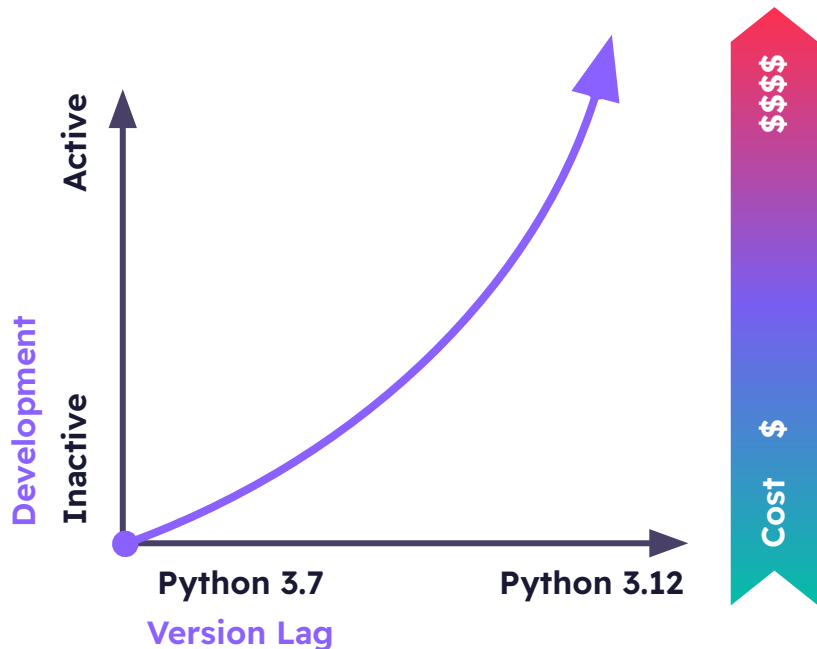
(Jul 2021)
1,500 companies impacted



(Dec 2020)
18,000 companies impacted

By 2025, 45% Of Organizations Worldwide Will Have Experienced Attacks On Their Software Supply Chains, A 3x Increase From 2021

Minimize Time, Complexity & Cost



Longer you wait to update open source, the more expensive it becomes to do so:

- Breaking changes more likely
- Security threats guaranteed
- Productivity loss
- Miss out on innovations
- Recruiting costs go up

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Older the Python you upgrade, the more breaking changes are introduced from your dependencies...

3.7	3.8	3.10	3.12
✓ requests	✓ requests	⚠ requests	⚠ requests
✓ Flask	✓ Flask	✓ Flask	⚠ Flask
✓ matplotlib	⚠ matplotlib	⚠ matplotlib	⚠ matplotlib
✓ Pandas	✓ Pandas	⚠ Pandas	⚠ Pandas

...requiring a greater portion of your application to be rewritten.

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ActiveState Platform Demo

Q&A

Next Steps

Schedule a discussion to get an EOL assessment:

<https://www.activestate.com/solutions/contact-sales/>

Learn more about our Version Freedom initiative:

<https://www.activestate.com/version-freedom/>

Try the ActiveState Platform for free:

<https://platform.activestate.com/>