

“Stable, Testing or Unstable”

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(Reading ease – 66. Technical level – Intermediate.)

Contents

A cyber question inspired by Shakespeare.	1
Majority wants a stable operating system.	1
Explanation of the context.....	2
Common Software.....	2
What is the practical impact?.....	2
Difference between Testing and Unstable.....	2
My choice	3
What is in a name - Your choice?.....	3

A cyber question inspired by Shakespeare.

Shakespeare asked, ‘what is in a name.’ He was thinking of cyber. I am kidding. Does our choice of a name affect cyber risk? I asked a question in my LinkedIn [article](#).

“If you are given a choice of three names for an operating system - which one the following, would you choose?

- Stable
- Testing
- Unstable”

You do not need to be an IT geek to answer it. You do not need to study literature.

Majority wants a stable operating system.

Here is the distribution of readers’ votes:

Stable	:	71%
Testing	:	14%
Unstable	:	14%

Most voters preferred Stable. I expected they would. As cyber risk is high, we want the safest option. We do not want to get hacked, right?

Explanation of the context

All of you know Windows 10. It is an operating system for laptops, etc. Debian is a popular operating system for servers. It is open source. It is free. It is solid. Debian has three versions - Stable, Testing and Unstable. The last one is also known as Sid. Here is a quote from Debian.

“[...] Sid takes its name from a Toy Story character. In the movie, Sid is the kid next door who breaks his toys and makes nasty creatures of them.”

Here is a simple explanation of how the three versions work.

- All software (or its update) first enters the Debian Unstable version. It stays there for 7-10 days to find any major bugs.
- It then enters the Testing version. It stays there for a long time.
- The Stable version is the last one to receive updates. Main decision there is security. However, that depends on the time available to Debian developers.

Common Software

Let us compare the software included in each version. This is the position on 30 May 2021. We focus on the most used software.

Software	Debian Stable	Debian Testing and Debian Unstable
OpenSSL	1.1.1d (Security problems)	1.1.1k (latest)
OpenSSH	7.9p1 (Number of bugs and security problems)	8.4p1 (Not the latest 8.6p1; has a few bugs)
Nginx	1.14.2 (Security problems)	1.18.0 (Not the latest 1.20.1 / 1.21.0)
Apache	2.4.38 (Security problems)	2.4.46 (latest)
Certbot	0.31 (Number of bugs and lacks new features)	1.12 (Not the latest 1.15)

The default software included in Debian Stable is older. It may have security problems and bugs. It will lack new features. Debian Testing and Unstable have more recent software. Of course, even then some of that may not be the latest.

What is the practical impact?

Debian Stable is a problem. An automatic update may not improve its security. Therefore, you need to manually update everything. Both Debian Testing and Unstable need much less effort.

Difference between Testing and Unstable

The table above showed no difference between these two versions. That is true for commonly used software. Debian does not recommend Unstable for production use. Production needs to be bug free. Unstable version hence requires caution.

There is also another difference. A few months before Debian releases a new Stable version, the Testing version goes into a freeze mode. It does not receive new packages during freeze. However, the Unstable version may receive updates despite the freeze. So, every two years, we will have dilemma to choose between Testing and Unstable. IMHO both are better than Stable anyway.

My choice

In 2020, I mainly used Debian Testing for my servers. These include websites, email, VPN, video, machine learning etc. I was happy with its stability and security. However, in 2021, Debian intends to release its next stable version (aka Bullseye). Testing has thus entered the freeze mode. That motivated me to play with the Unstable version. So far, I have not faced any problems for my servers. All servers on Unstable seem to work well. Fingers crossed!

Until the official release of Bullseye, I will stay with Debian Unstable. In 2022, I will decide again.

What is in a name - Your choice?

Most readers voted for Stable. They did not know the risk they took. In cyber, you may need to ignore the name. If you voted Testing or Unstable, well done!

Many of us do not choose operating systems, etc. You are not IT geeks. But I hope you learnt a few lessons today.

- Just because something has 'stable' in its name, we should not assume it to be secure.
- Always ask, "Do automatic updates fully reduce the cyber risk?"
- Or you can hire cyber pros. When you interview, ask them "Debian - Stable, Testing or Unstable?". If they say stable, get another candidate.

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Disclaimer: All views in this article are my own. My employer may not share my views. (Yes, I have a day job too). The servers used for testing are my own servers.