Sustainability with Performance & Resilience Testing

Incident Management 2024

Squash your bugs before they grow!

ONLINE

Arun Kumar Dutta
Associate Director| LTIMindtree

Sustainability with Performance & Resilience Testing

Agenda

❑ Sustainability & Carbon footprint

❑ Sustainability is very important to IT

❑ Sustainability with Performance & Resilience testing

❑ Post Digital Transformation

Biography

- 19 Years in Performance & Resilience Testing

- 22+ Testing Conferences, 12+ Global Webinars, 72+ blog articles

- Many Global & Organizational Awards

Sustainability with Performance & Resilience Testing
Sustainability

Image Source: https://aspiringgentleman.com/wp-content/uploads/2020/09/Sustainable-Practices.jpg

Sustainability with Performance & Resilience Testing
Carbon Footprint

Image Source: https://spaceaye.com/wp-content/uploads/2022/01/carbon.png

Sustainability with Performance & Resilience Testing
Information Technology & Sustainability

Sustainability with Performance & Resilience Testing
How Anyone can learn these concepts

❑ "Green Software for practitioners (LFC131)" - Green Software

   Foundation and The Linux Foundation

❑ "The Principles of Sustainable Software Engineering" - Microsoft

❑ Reading Blogs, Forums

Sustainability with Performance & Resilience Testing
Performance, Resilience and Sustainability

❑ Making the application faster

❑ Optimizing the server resources- On-premise & Cloud

❑ Continuous Performance and Resilience Testing

Sustainability with Performance & Resilience Testing
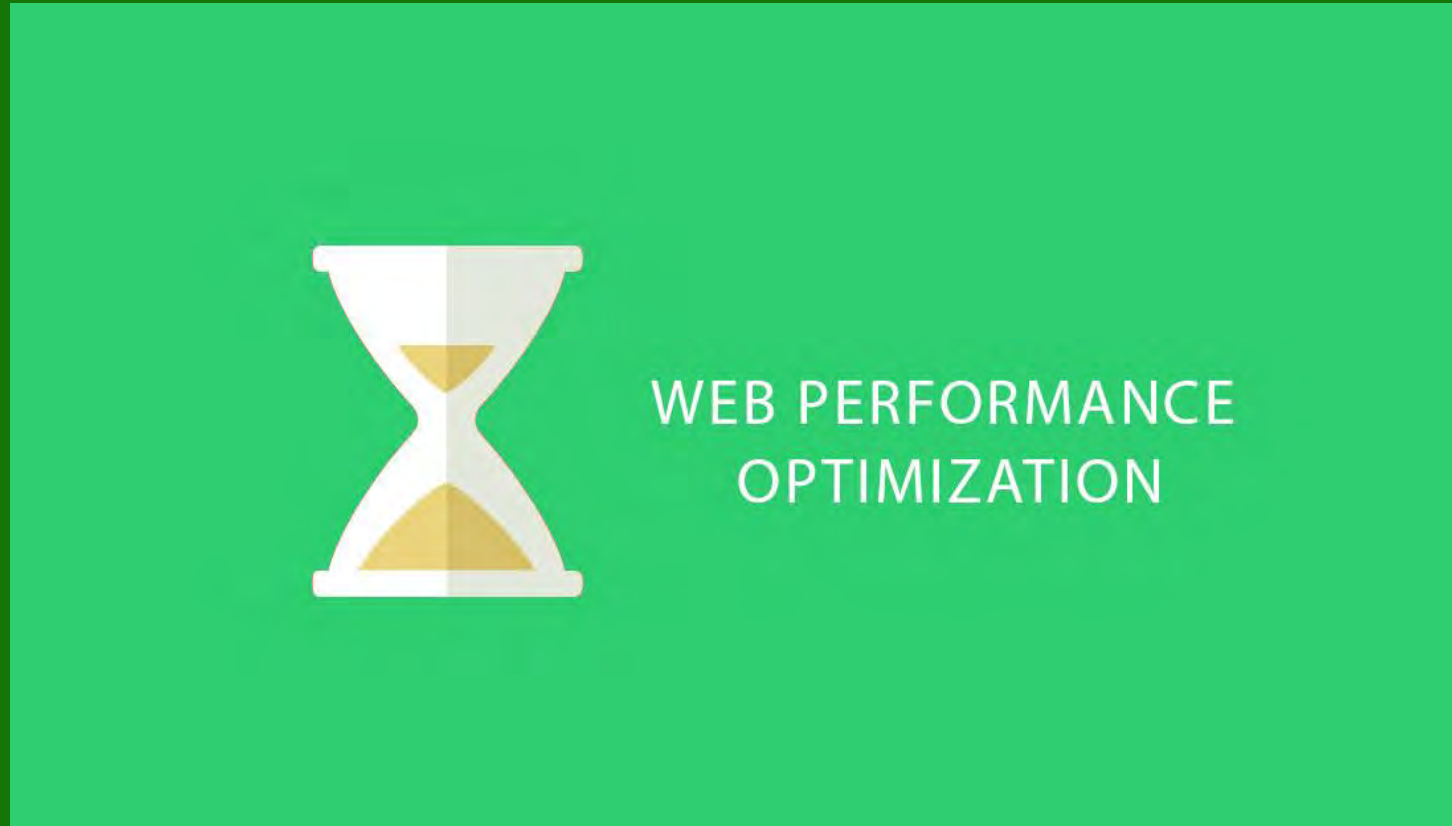## Web Performance Optimization for better Carbon footprint

Image Source: https://colorlib.com/wp/wp-content/uploads/sites/2/web-performance-optimization-tools.jpg

Sustainability with Performance & Resilience Testing
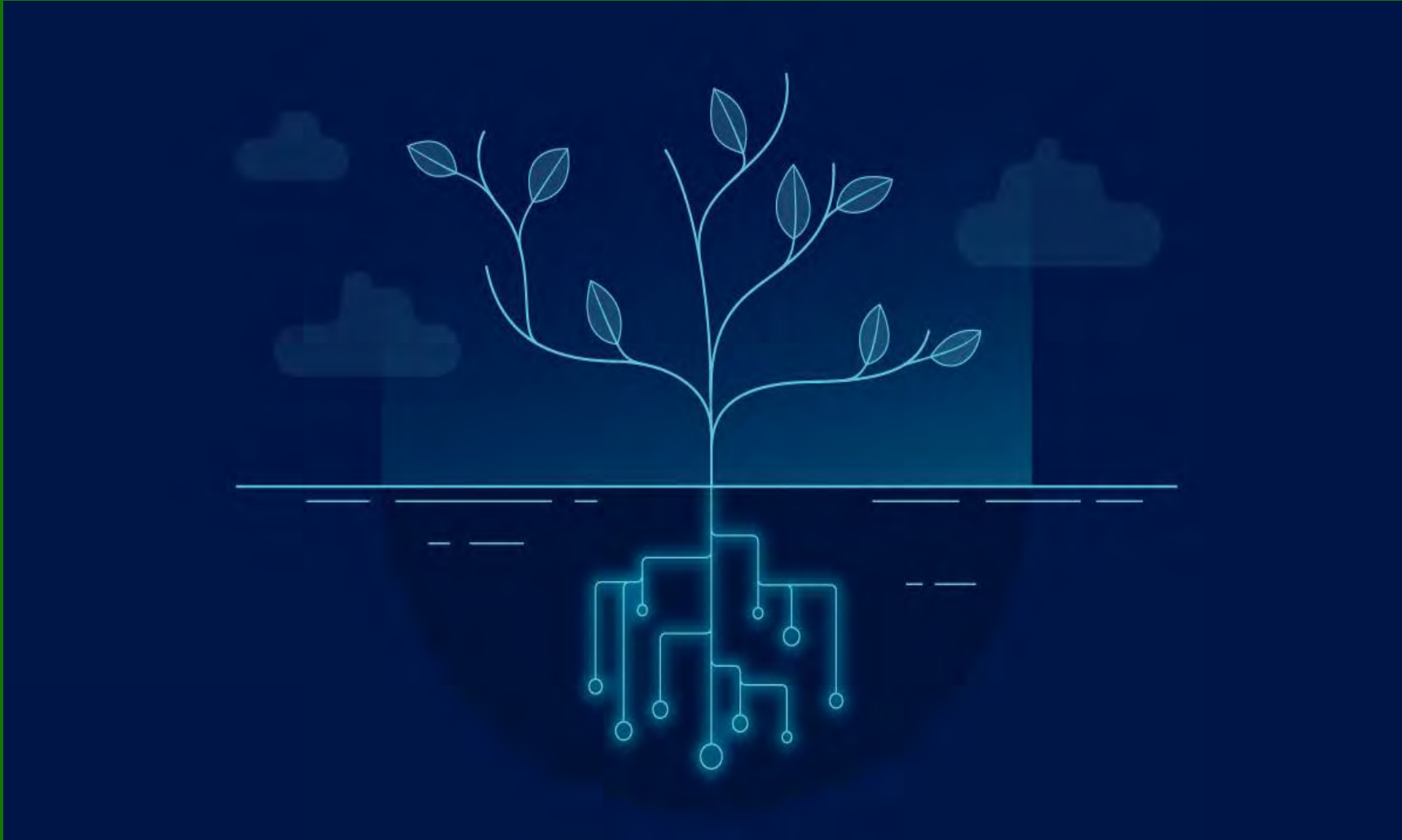## Post Digital Transformation

Image Source:
https://media.ippo-engineering.eu/ippo-engineering.eu/wp-content/uploads/2020/09/IPPO-digital-transformation_fb-1200x630px.jpg

Sustainability with Performance & Resilience Testing Blogs

testsigma   Products ˅   Solutions ˅   Docs   Pricing   Resources ˅

Performance & Resilience Testing for Improved Sustainability

Post Digital Transformation

Last few years, I have been reading and writing a lot on sustainability with performance and resilience testing. I already published 6+ articles and presented in couple of international conferences on this intense topic.

Organizations are now getting matured after digital transformations and already aware of the facts that performance and resilience testing assists in sustainability in below 2 ways:

- First, by making the application or websites faster (if application is faster, then it uses less data to serve the request and eventually it will generate less carbon to the environment)

- Second, by optimizing the server resources (if server resources are optimized, then it consumes less energy which is better from sustainability perspective)

Sustainability with Performance & Resilience Testing Blogs

EuroSTAR Huddle
Europe's No.1 Software Testing & QA Learning Resource

WHO WE ARE   LEARNING RESOURCES

Performance and Resilience Engineering In The Post-Covid Era

Posted on February 2, 2022 at 4:01 am.
Written by Arun Kumar

Post Covid, our life and work are going through a major change. There is no doubt, it is having a great impact on every aspect of our work and workplace. Consequences of that digital adoption is becoming mandatory. The acceleration in digital adoption in post Covid era leads to enormous potential in continuous performance and resilience engineering field. Rightsizing the IT infrastructure for maintaining current and future demands ing.com/.../performance-and-resilience-engineering-in-the-... of speed, scalability, stability, availability, resilience is the need

GTR 2021 Global Testing Retreat

HOME TEAM ∨ SCHEDULE SPEAKERS VIDEOS ∨ CALL FOR PAPERS ABSTRACT LEADERBOARD REGISTRATION

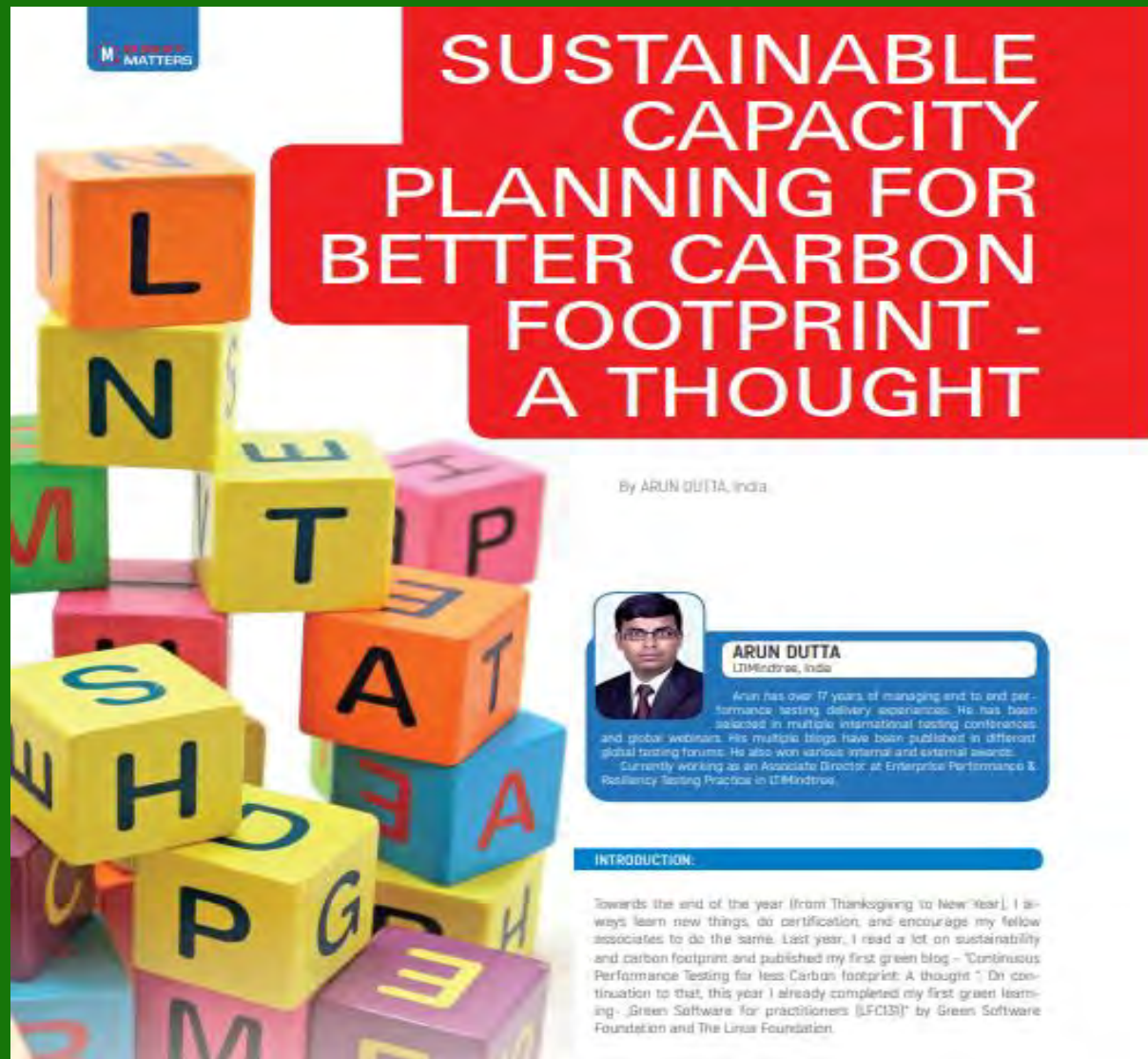## NEWS AND BLOGATAHON2021 BLOGS

BlogATAhon2021 Entry

Continuous Performance Testing for less Carbon footprint: A thought

by Arun Kumar Dutta

Introduction:

Off late, I was reading a lot on sustainability and carbon footprint. Basically, this is like the need of the hour. Being performance testing background, my thought process was always inclined towards relating performance testing. In this blog article, I will put my thoughts about how performance testing can be helpful for less carbon footprint which leads to better sustainability and a healthier world for all of us.

Sustainability with Performance & Resilience Testing Blogs

SUSTAINABLE CAPACITY PLANNING FOR BETTER CARBON FOOTPRINT – A THOUGHT

By ARUN DUTTA, India

ARUN DUTTA
LTIMindtree, India

Arun has over 17 years of managing end to end performance testing delivery experiences. He has been selected in multiple international testing conferences and global webinars. His multiple blogs have been published in different global testing forums. He also won various internal and external awards. Currently working as an Associate Director at Enterprise Performance & Resiliency Testing Practice in LTIMindtree.

INTRODUCTION:

Towards the end of the year (from Thanksgiving to New Year), I always learn new things, do certification, and encourage my fellow associates to do the same. Last year, I read a lot on sustainability and carbon footprint and published my first green blog – "Continuous Performance Testing for less Carbon footprint: A thought ". On continuation to that, this year I already completed my first green learning - Green Software for practitioners (LFC131)" by Green Software Foundation and The Linux Foundation.

APPLICATION PERFORMANCE AND SUSTAINABILITY WITH AUTO SCALING A THOUGHT

By ARUN DUTTA, INDIA

ARUN DUTTA
Larsen & Toubro Infotech Ltd, India

Arun has over sixteen and half years of managing end to end performance testing delivery experiences. He has been selected in multiple international testing conferences and global webinars. His multiple blogs have been published in different global testing forums. He also won various internal and external awards. Currently working as Associate Principal in Performance Engineering Services in Larsen & Toubro Infotech Ltd.

INTRODUCTION:

I have been doing performance testing over 16 and half years and published over 50 blog articles across globe. Nowadays, we all know the benefits of moving your application to cloud both in terms of cost savings and sustainability perspective. Just moving your application into cloud doesn't ensure both the benefits. Rather, optimum application performance confirms those benefits.

Sustainability with Performance & Resilience Testing Blogs

Organizations need to be very serious when conducting Full-blown Performance and Resilience Test Executions for minimizing Carbon footprint

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Arun Kumar Dutta
Associate Principal- Quality Engineering | Blogger| Speaker

14 articles

March 6, 2023

Introduction:

Performance testing is very crucial for any product success as it directly brings end-user happiness. When, I started my career in performance testing more than seventeen years ago, we need to make the project team understand why performance testing is important. Things has changed a lot now. Performance testing is now an integral part of any project. Everyone started understanding the

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WHO WE ARE   LEARNING RESOURCES

Applications don't run fast in the Cloud without Continuous Performance Testing

Posted on September 26, 2020 at 9:25 am.
Written by Arun Kumar

Are you investing in continuous performance testing and continuous performance monitoring?

We know that organisations are moving towards cloud due to its many benefits.

In cloud, scalability and availability can be achieved easily. However, it is not free. Organisations need to pay for that.

Applications don't run fast in the cloud. So, the question is how will organisations ensure that their application will perform as expected after deploying the application in the cloud? Continuous performance testing &

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Thank you

For any clarifications→ Reach out to Arun Kumar Dutta (LinkedIn)