Incident Management

@ Netflix Velocity

Dave Hahn

Managing OS Release Transitions at Netflix Scale

Ed Hunter

Chaos Engineering: A Step Toward Resilience

Nora Jones

Failure

@ Netflix Velocity

Velocity

100 000 000 000

10 000 000 000

1 000 000 000

100 000 000

10 000 000

1 000 000

100 000

10 000

1 000

100

10

1

ADAM
SANDLER

WINONA
RYDER

MR. DEEDS

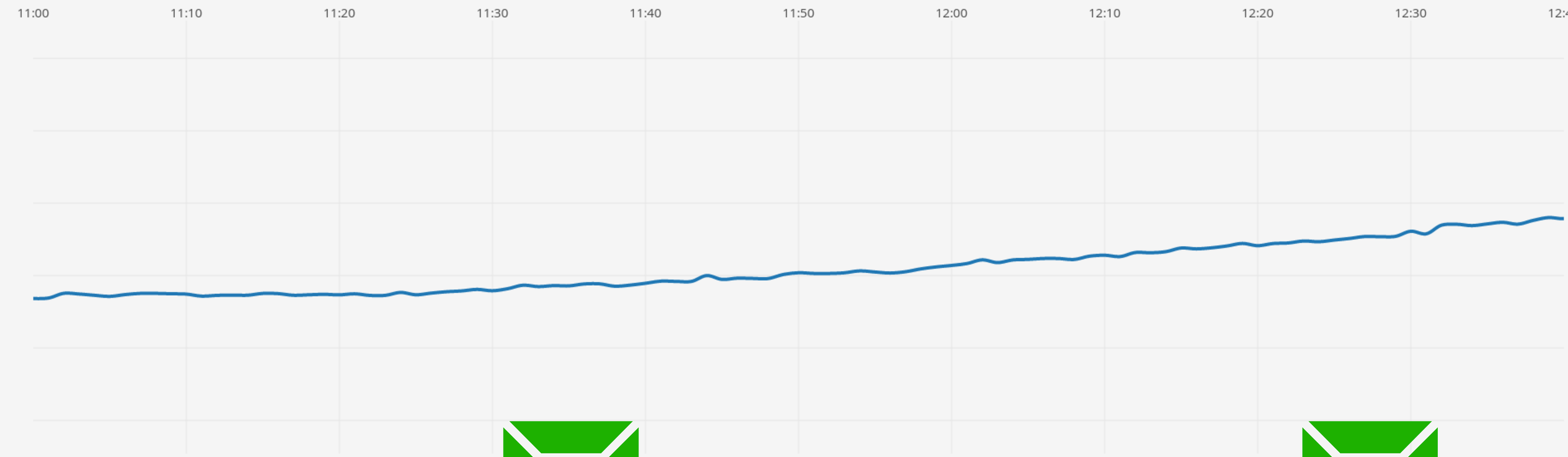
NETFLIX
SANDY
WEXLER

NETFLIX
THE
RIDICULOUS
6

NETFLIX
THE DO OVER

1

Chaos
Monkey



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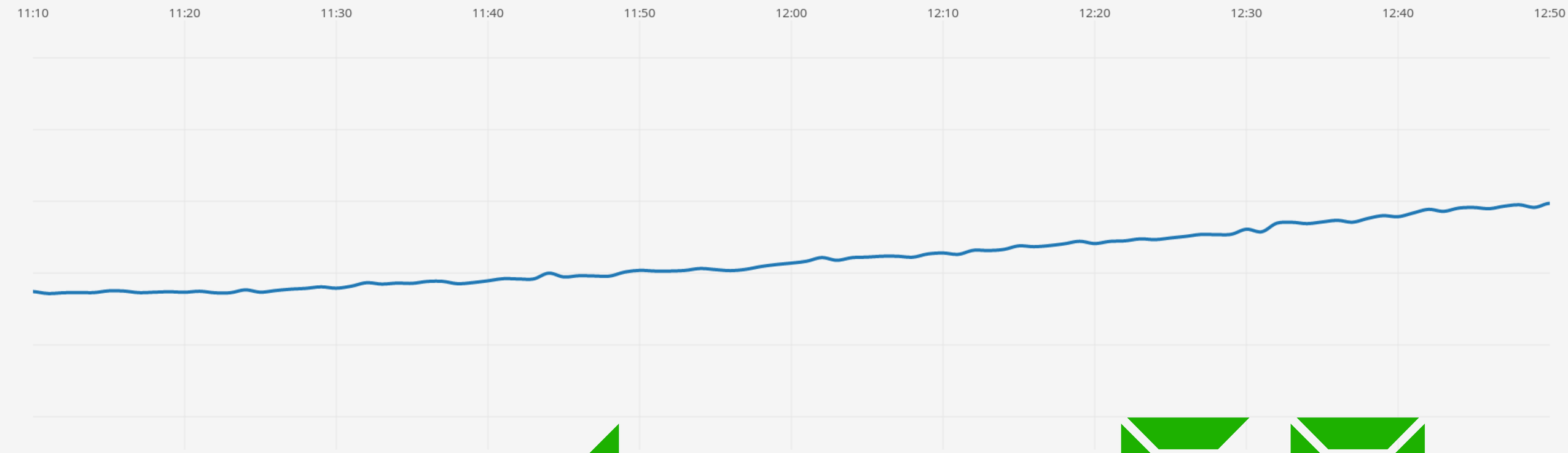
IMPACT

4MS

LATENCY



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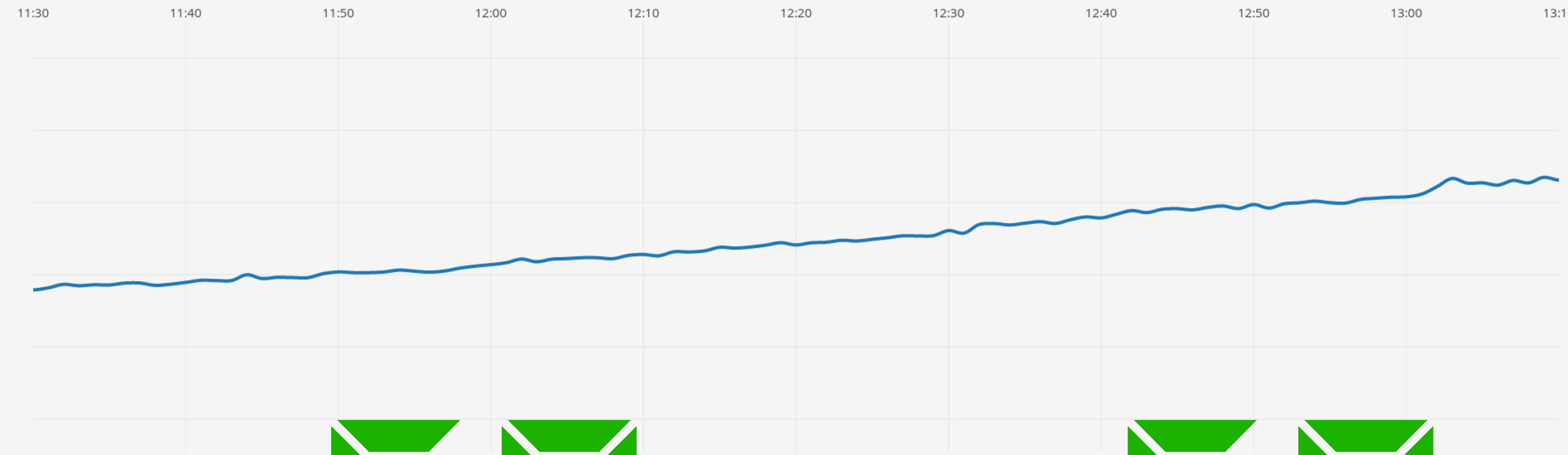
IMPACT

50ms

LATENCY



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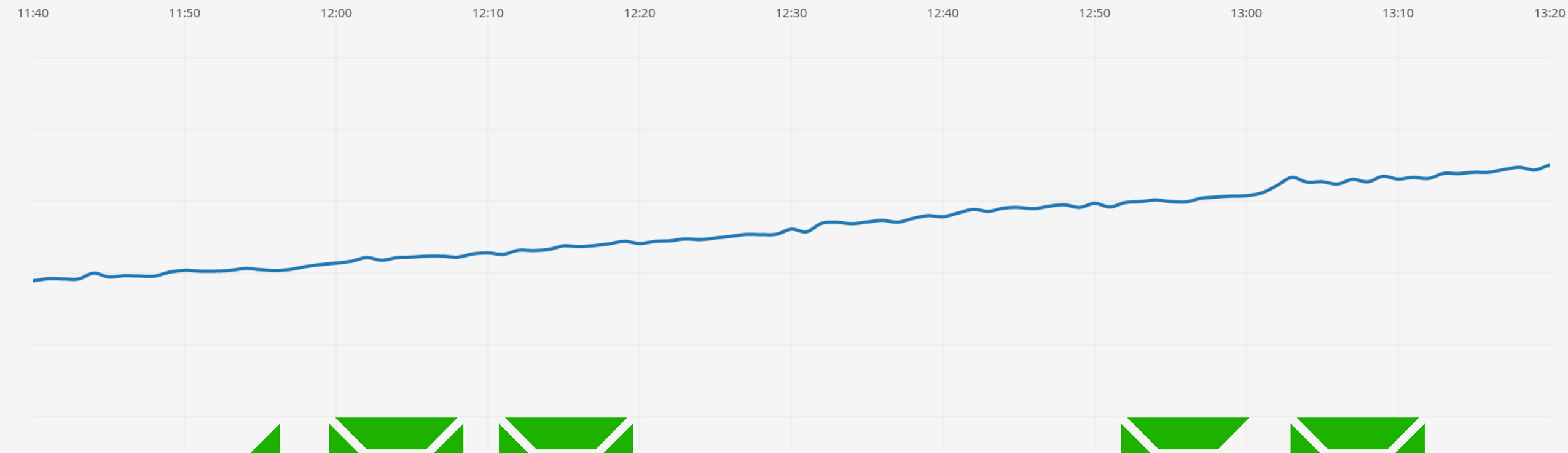
IMPACT

54ms

LATENCY



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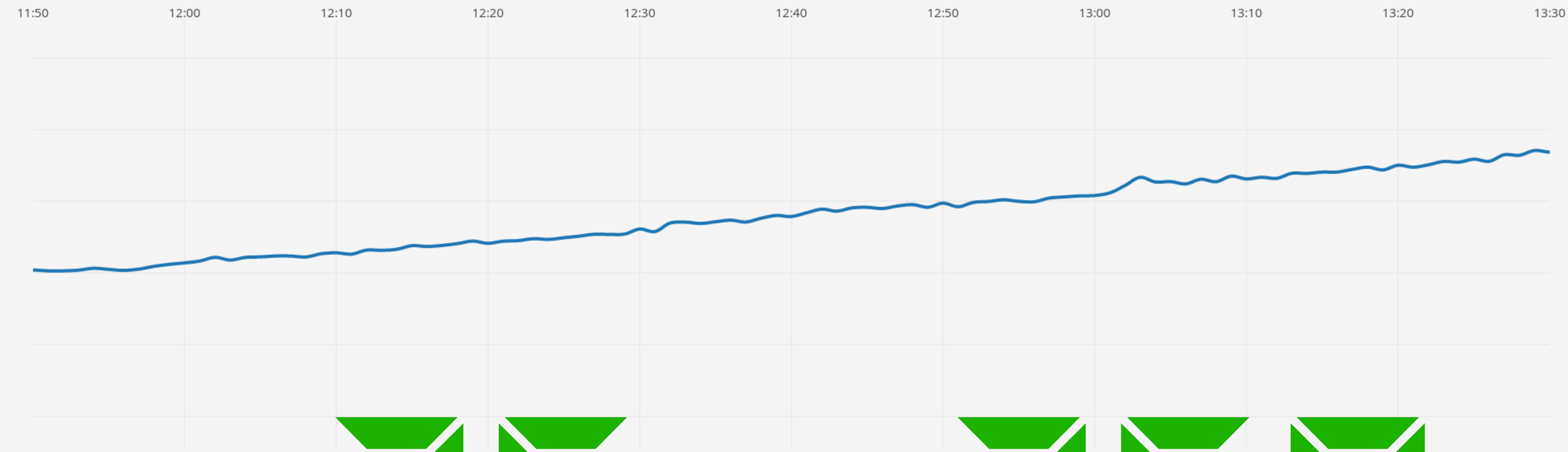
IMPACT

54 MS

LATENCY



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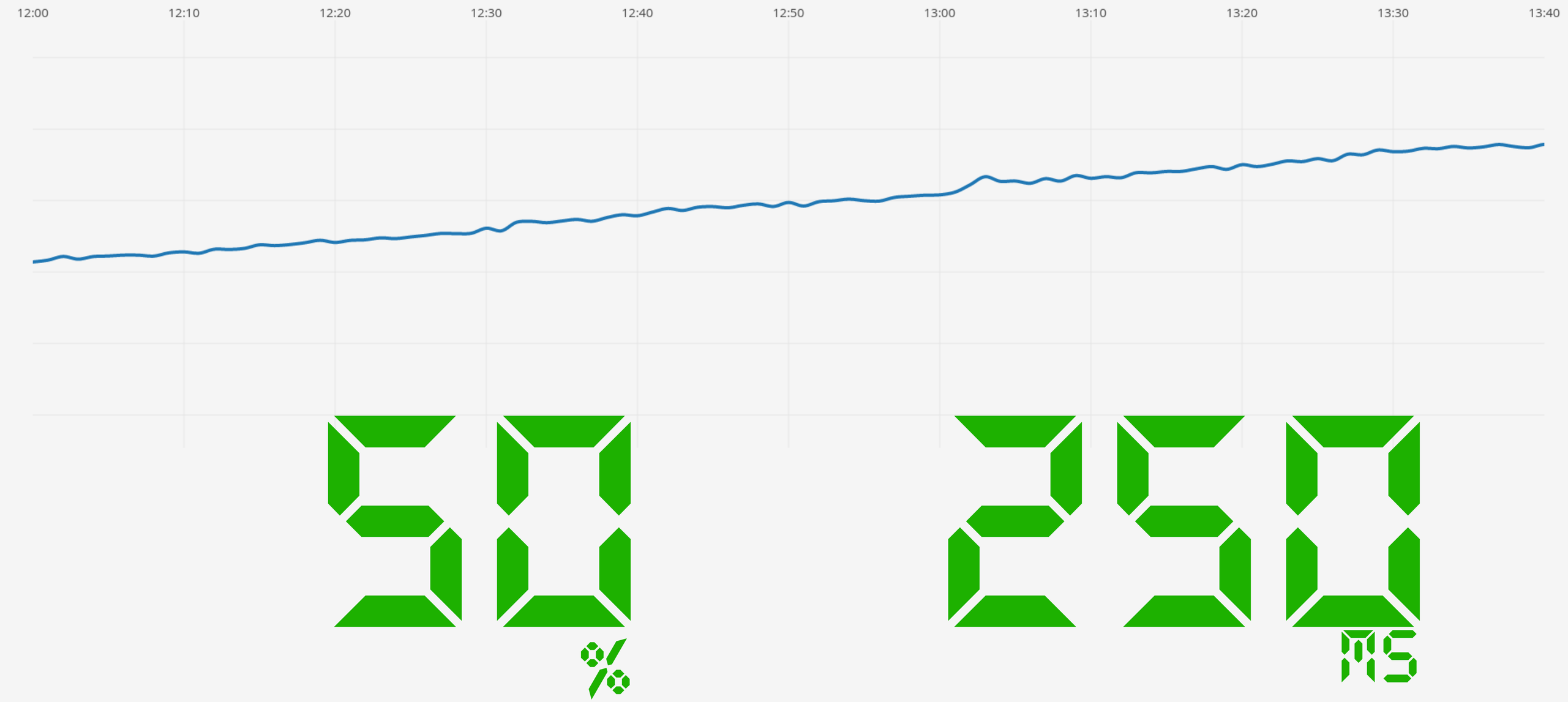
IMPACT

250 MS

LATENCY


12:00
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IMPACT
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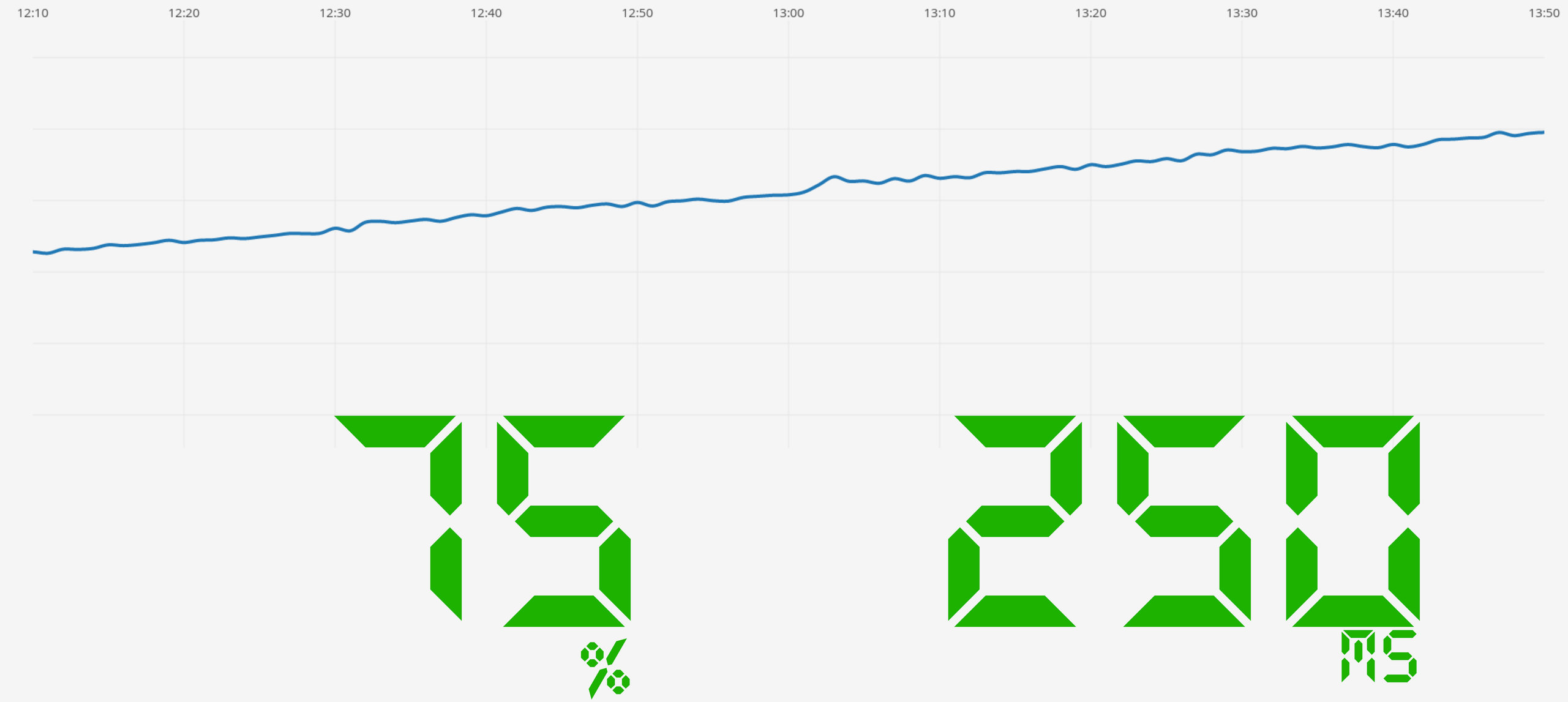
LATENCY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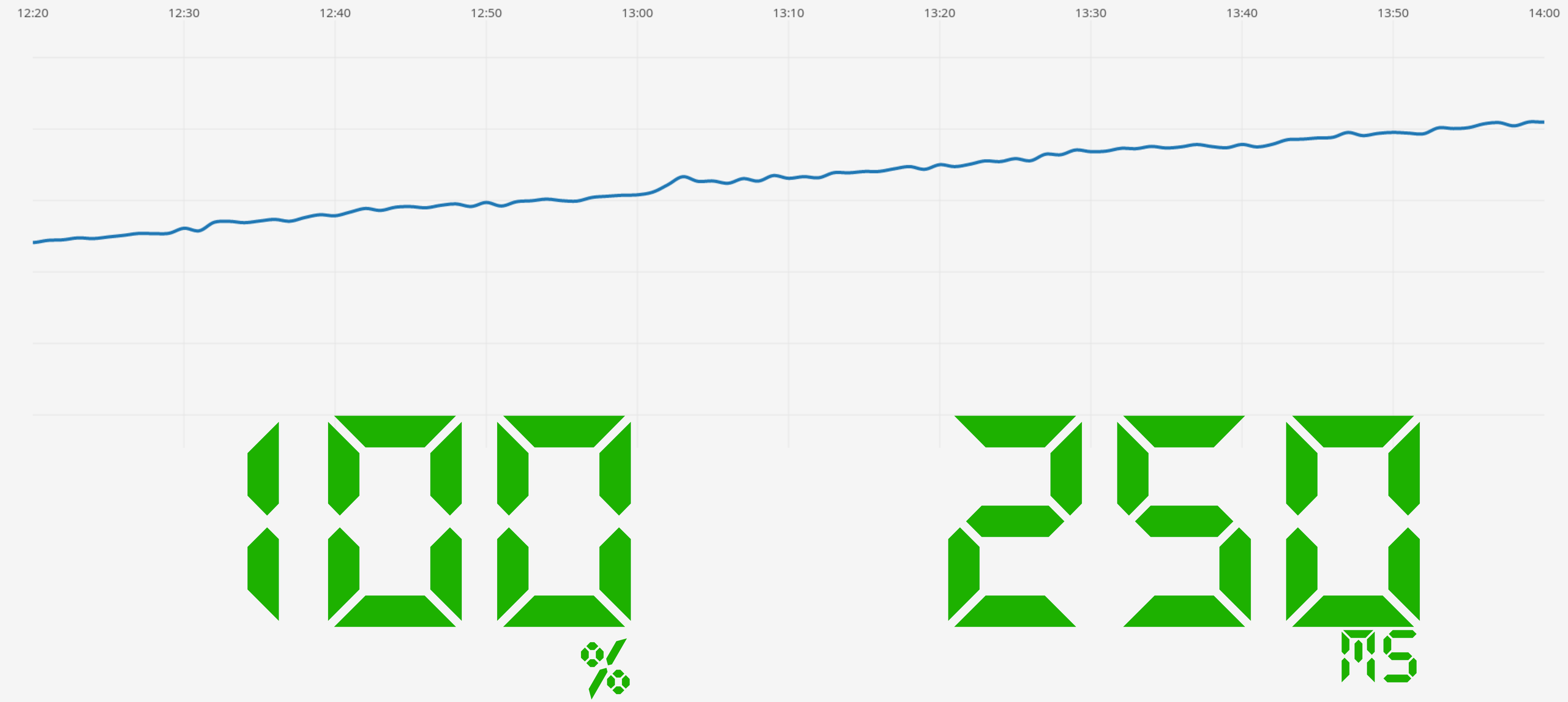
IMPACT
LATENCY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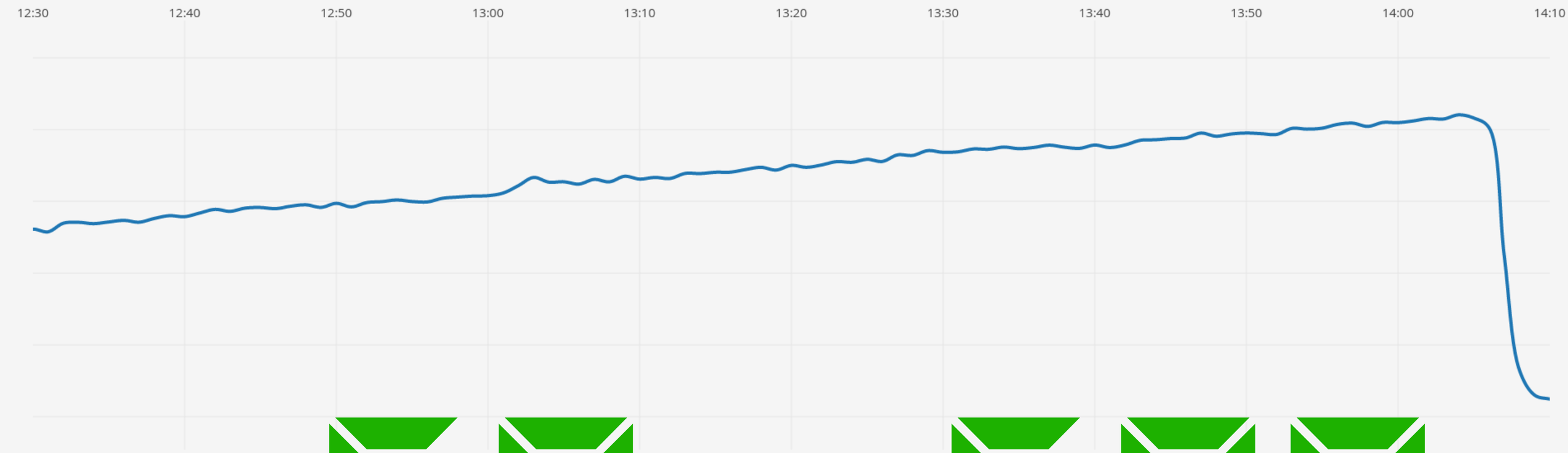
LATENCY



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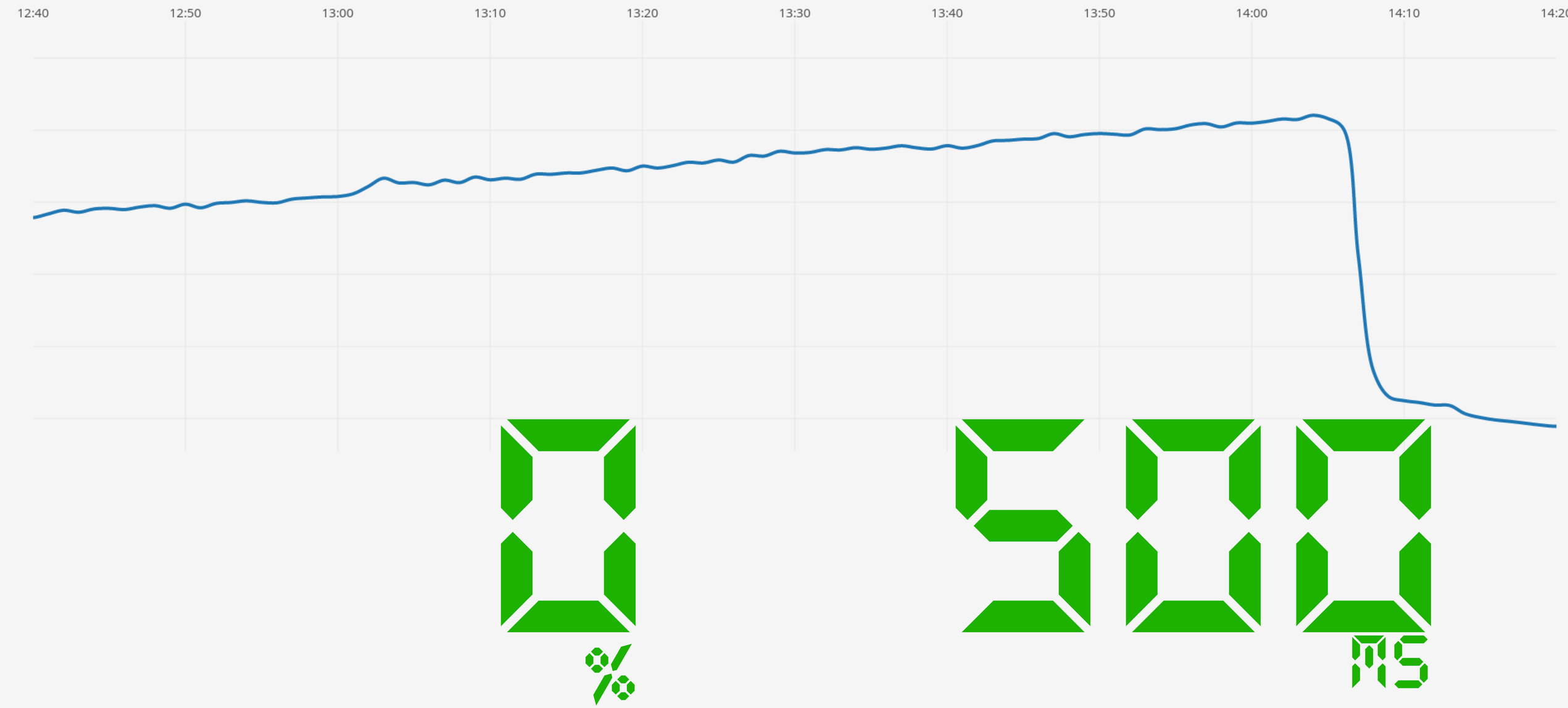
IMPACT

500ms

LATENCY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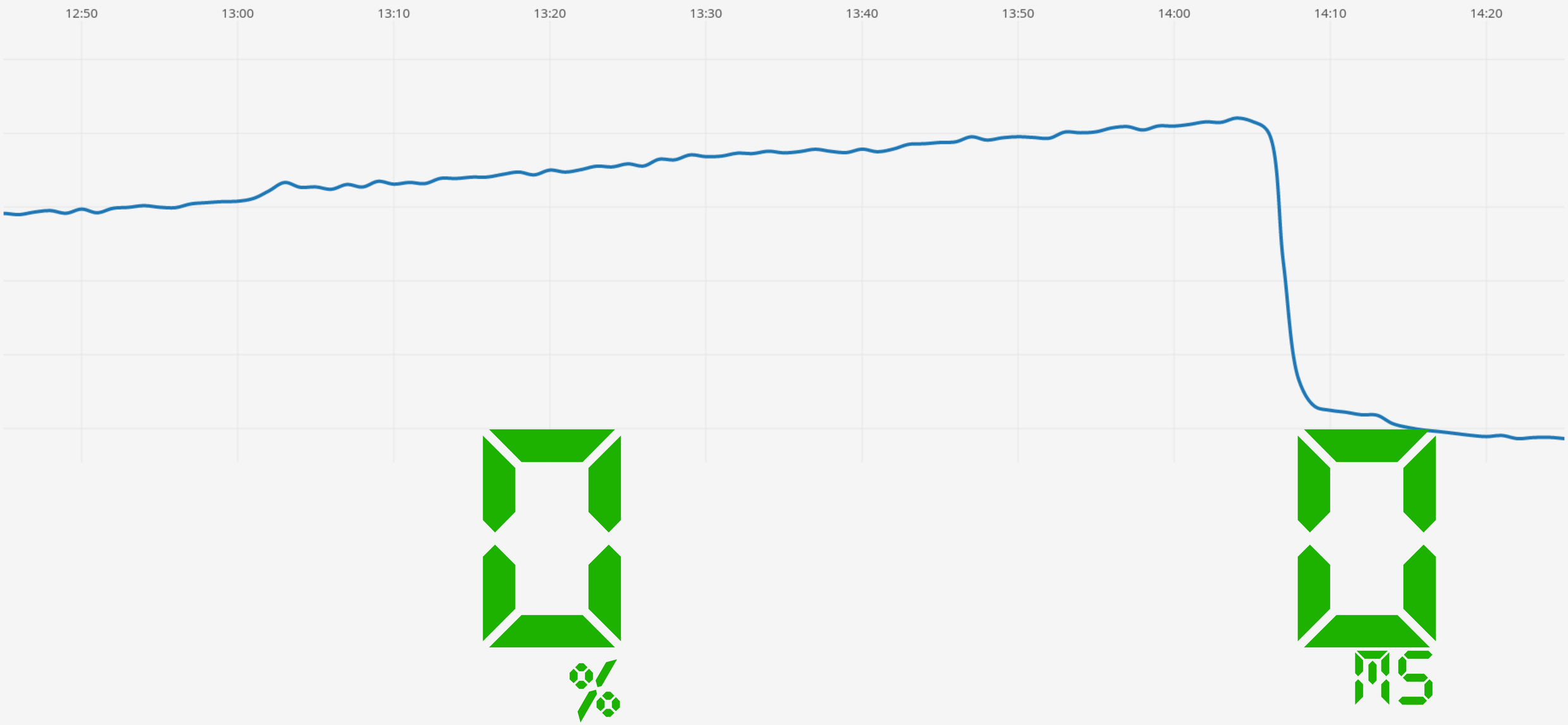
LATENCY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IMPACT
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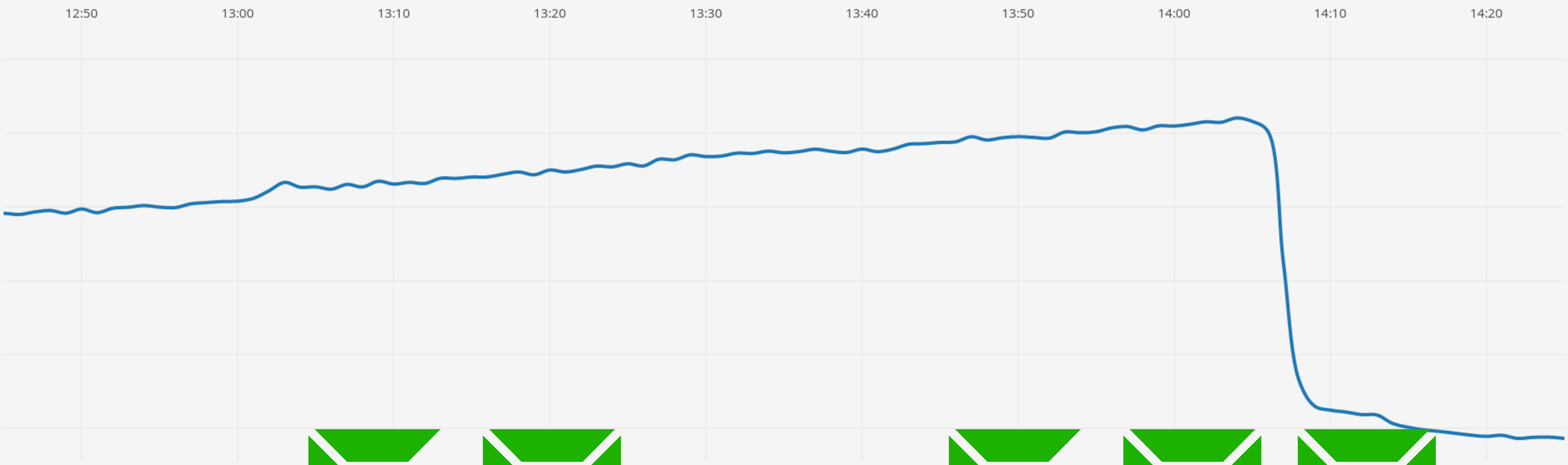
LATENCY

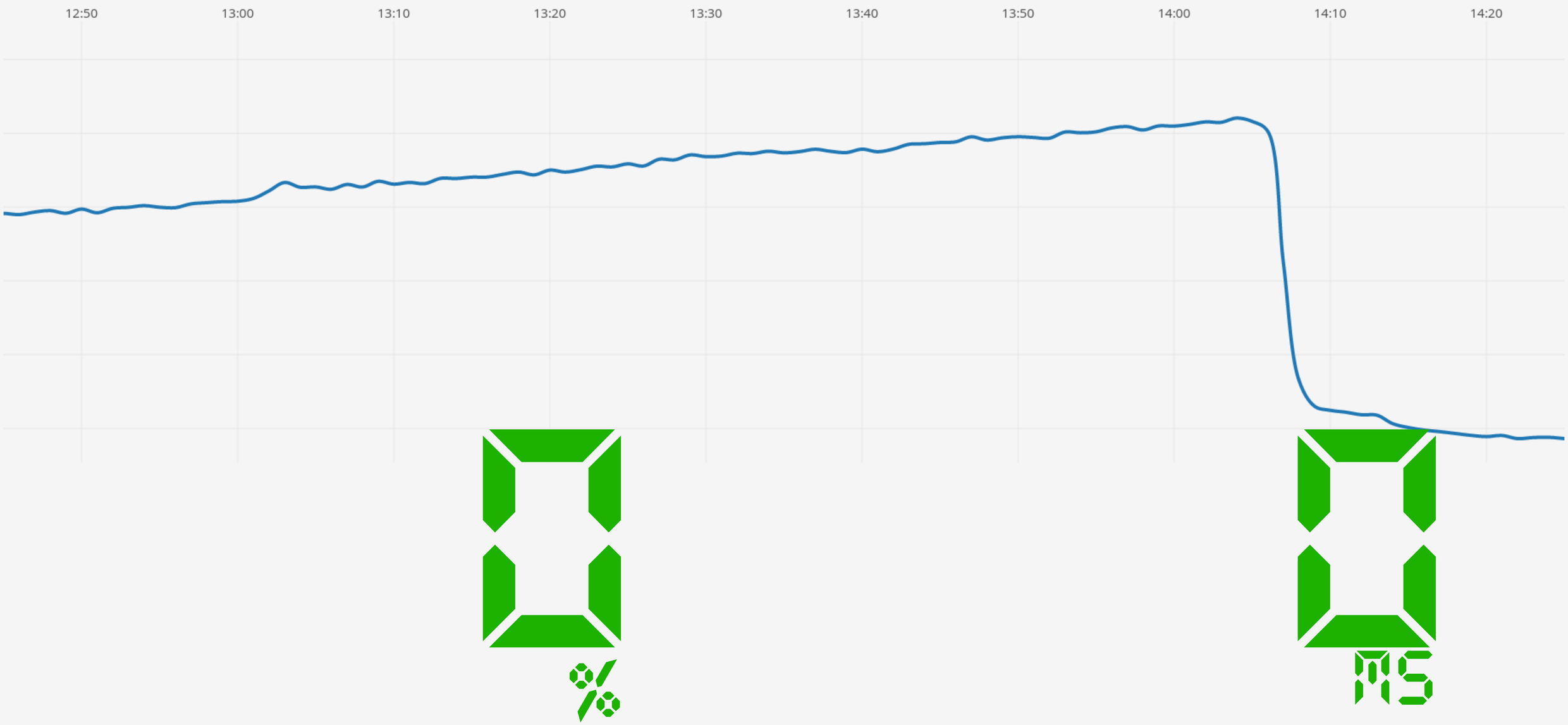


-50 %

IMPACT

-500 MS

LATENCY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IMPACT
4
MS
LATENCY

Learnings

Application Behavior

Blast Radius

Consistency

You

Already Knew

All That

Failure @ Netflix Velocity

Failure @ Netflix Velocity

Reasonable Prevention

Failure @ Netflix Velocity

Reasonable Prevention

Don’t Over-index

On Past Failures

Failure @ Netflix Velocity

Reasonable Prevention

Don’t Over-index

On Future Failures

Failure @ Netflix Velocity

Reasonable Prevention

Don’t Over-index

Failure @ Netflix Velocity

Invest in Resilience

Failure @ Netflix Velocity

Invest in Resilience

New Features

Failure @ Netflix Velocity

Invest in Resilience

Codify Good Patterns

Failure @ Netflix Velocity

Invest in Resilience

More Chaos

Failure @ Netflix Velocity

Expect Failures

Failure @ Netflix Velocity

Expect Failures

When not if

Failure @ Netflix Velocity

Expect Failures

Recovery > Prevention

Incident Management

@ Netflix Velocity

Incident Management

Goals

Incident Management

Goals

Short

Incident Management

Goals

Unique

Incident Management

Goals

Valuable

Incident Management

Incident Management

Experts

Incident Management

Failure Experts

Incident Management

CORE SRE

Incident Management

Before Incidents

Setting

Expectations

Incident Management

Before Incidents

Education

& Outreach

Incident Management

During Incidents

Incident Management

During Incidents

Coordination

Incident Management

During Incidents

Communication

Incident Management

After Incidents

Memorialization

Incident Management

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jobs.

netflix.

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Thank You!

Dave Hahn

dhahn@netflix.com

@relix42