
AWS
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MFG303

# Moving chip design to the cloud

Jeroen Dekker

Solutions Architect, Silicon Design on Cloud
NXP Semiconductors

Matt Morris

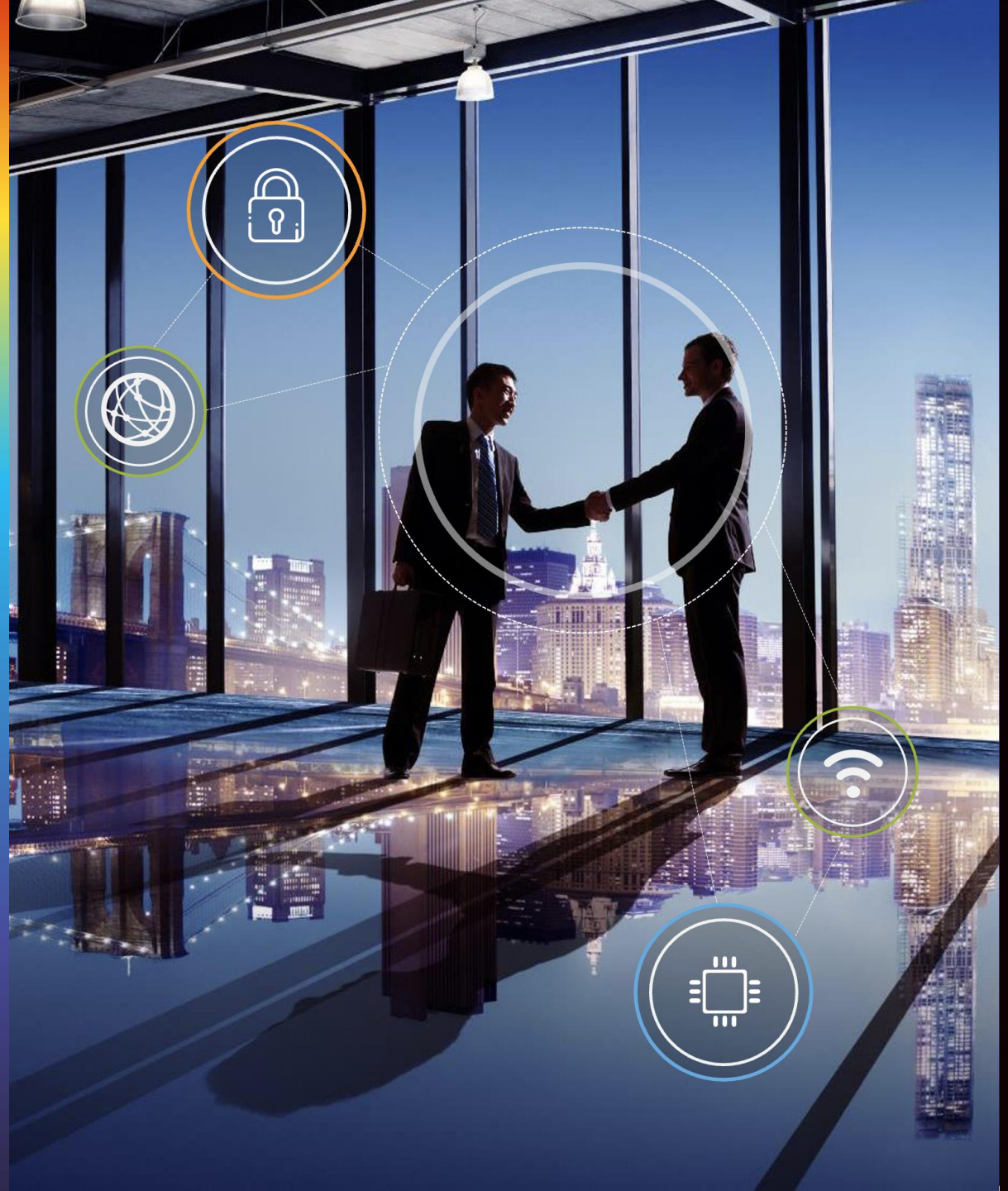
Solutions Architect, Semiconductor
Amazon Web Services

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# Agenda

- Who is NXP?
- Chip design workload challenges
- Key decisions for moving “all-in”
- Whiteboard
- Lessons learned

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# Secure Connections for a Smarter World

We accelerate breakthroughs that advance the world through our semiconductor technology leadership

Employees in

**30+ countries**

Headquartered in Eindhoven, Netherlands

**~31,000**

Employees

**9,500+**

Patent Families

**$11.06B**

Annual Revenue [1]

**60+**

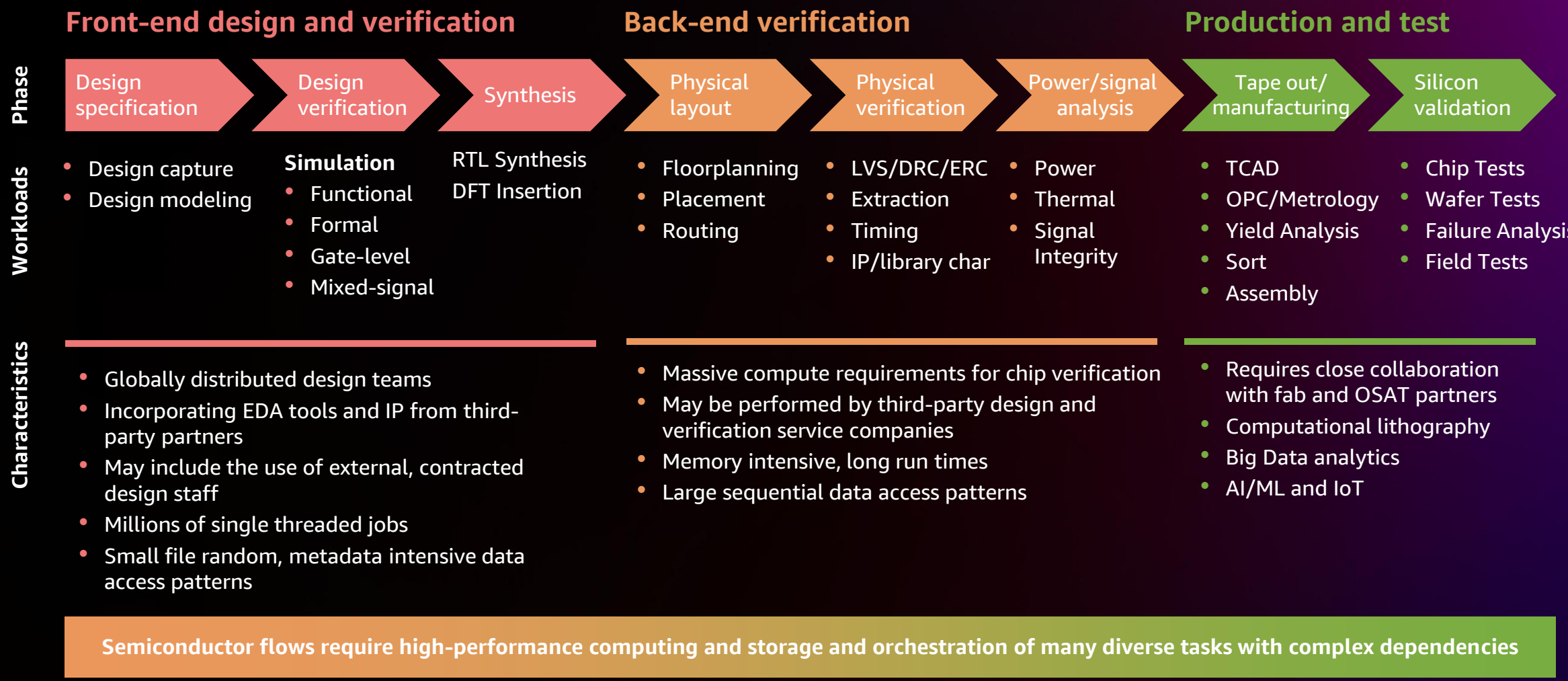
Year History

**~11,000**

Engineers

[1] Posted revenue for 2021 – Please refer to the Financial Information page of the Investor Relations section of our website at www.nxp.com/investor for additional information

# Chip design flow




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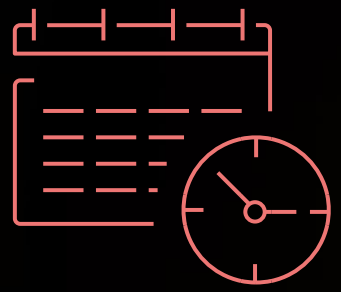
# Chip design IT infrastructure

TRADITIONAL ON-PREMISES CHIP DESIGN IT STACK

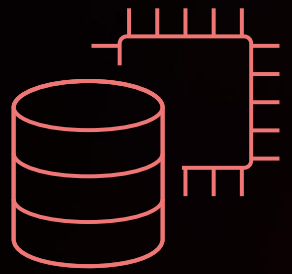



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# Chip design workload challenges



Time-to-market schedule



Resource-intensive and technology advancement



Difficult to forecast demand



Heterogenous resource demand profile

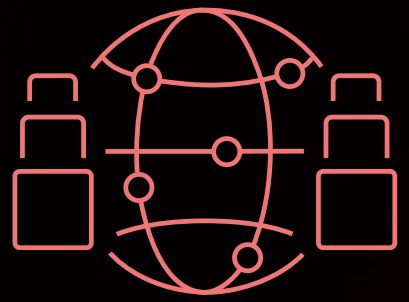
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# Past two-point strategy

1



Consolidate into regional datacenters

2



Burst to cloud

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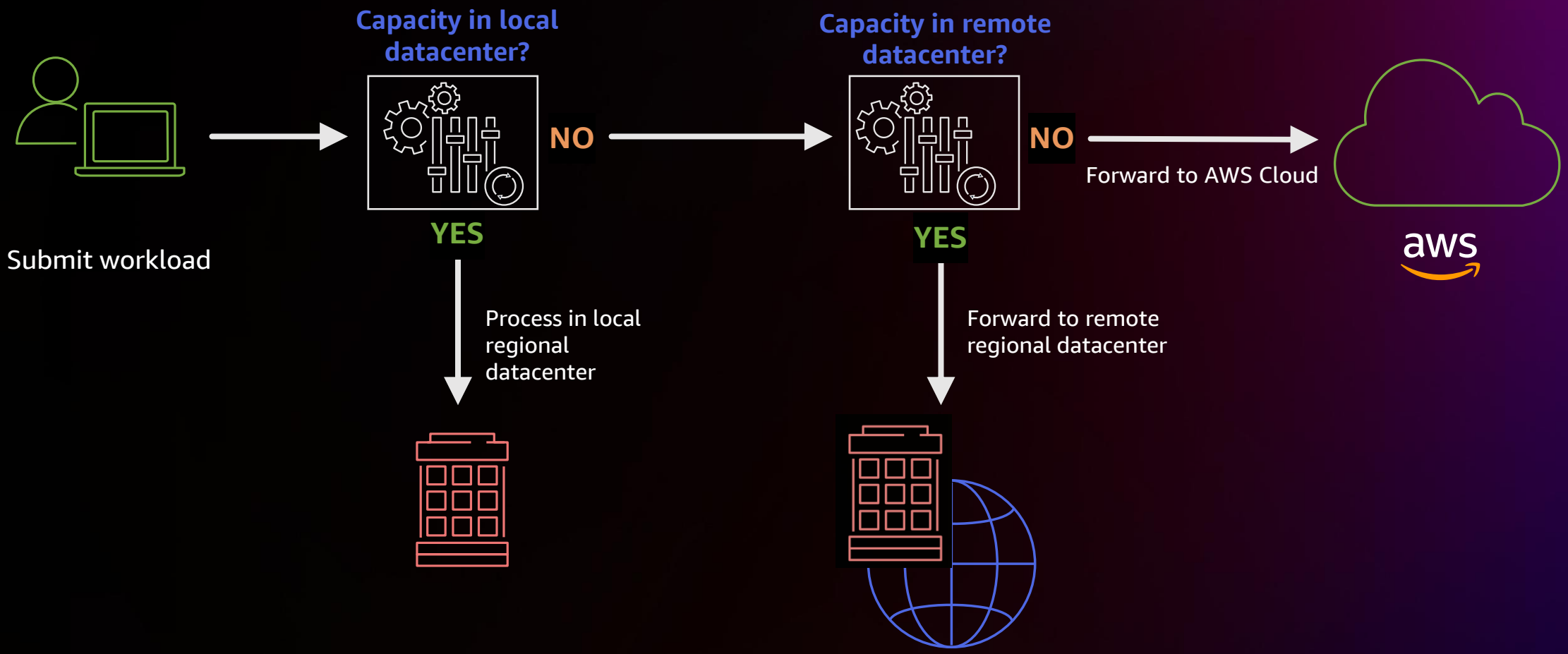
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# Four regional datacenters



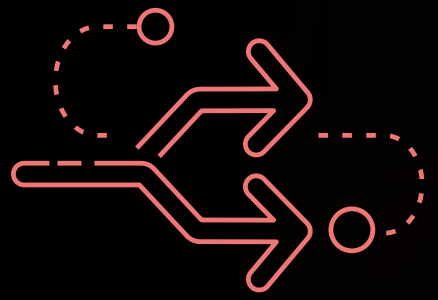

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# Cloud burst model




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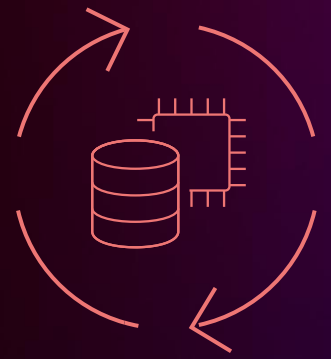
# Why move all chip design to cloud?



Flexibility



Cost



Lifecycle

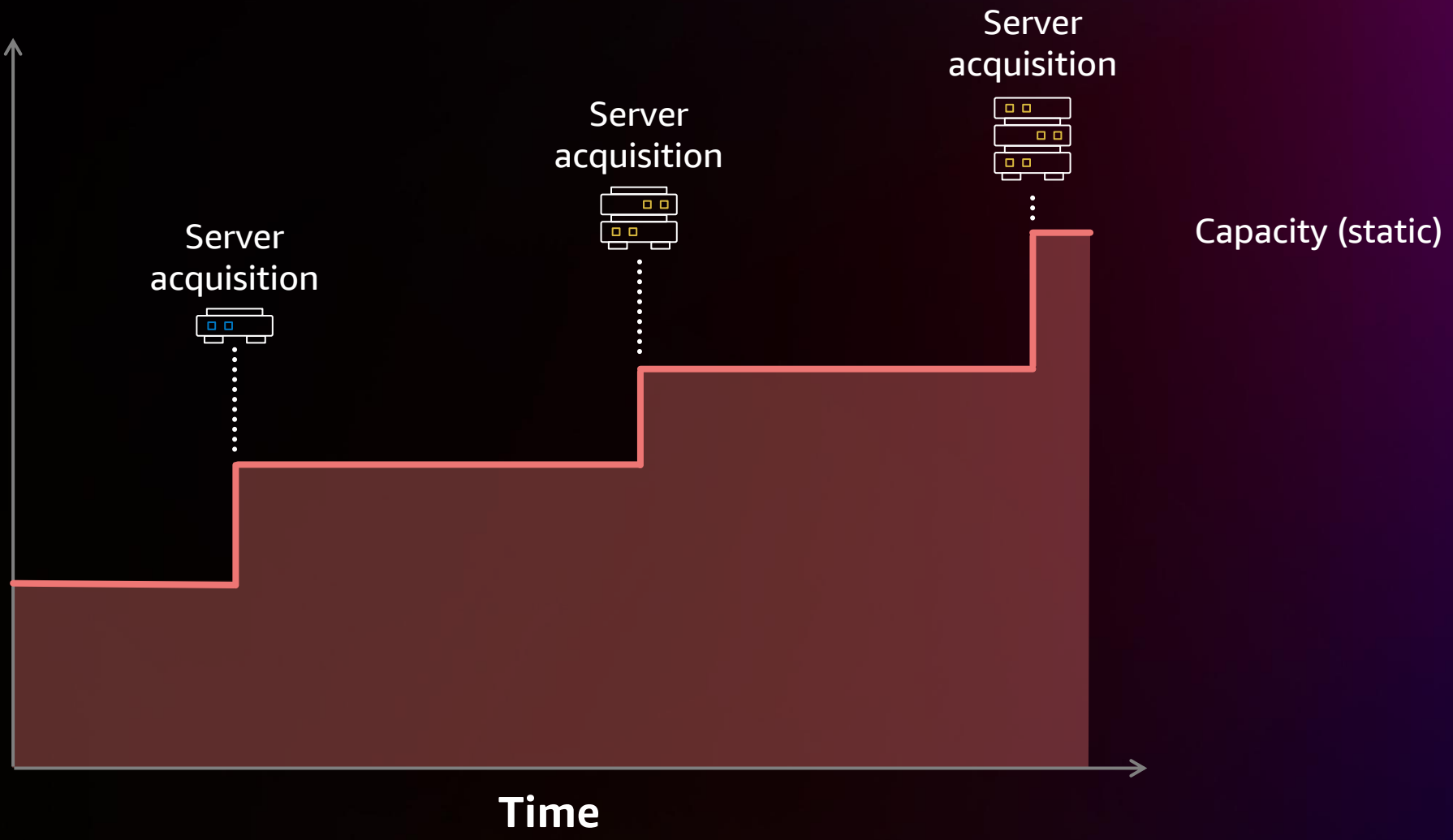
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# Flexibility

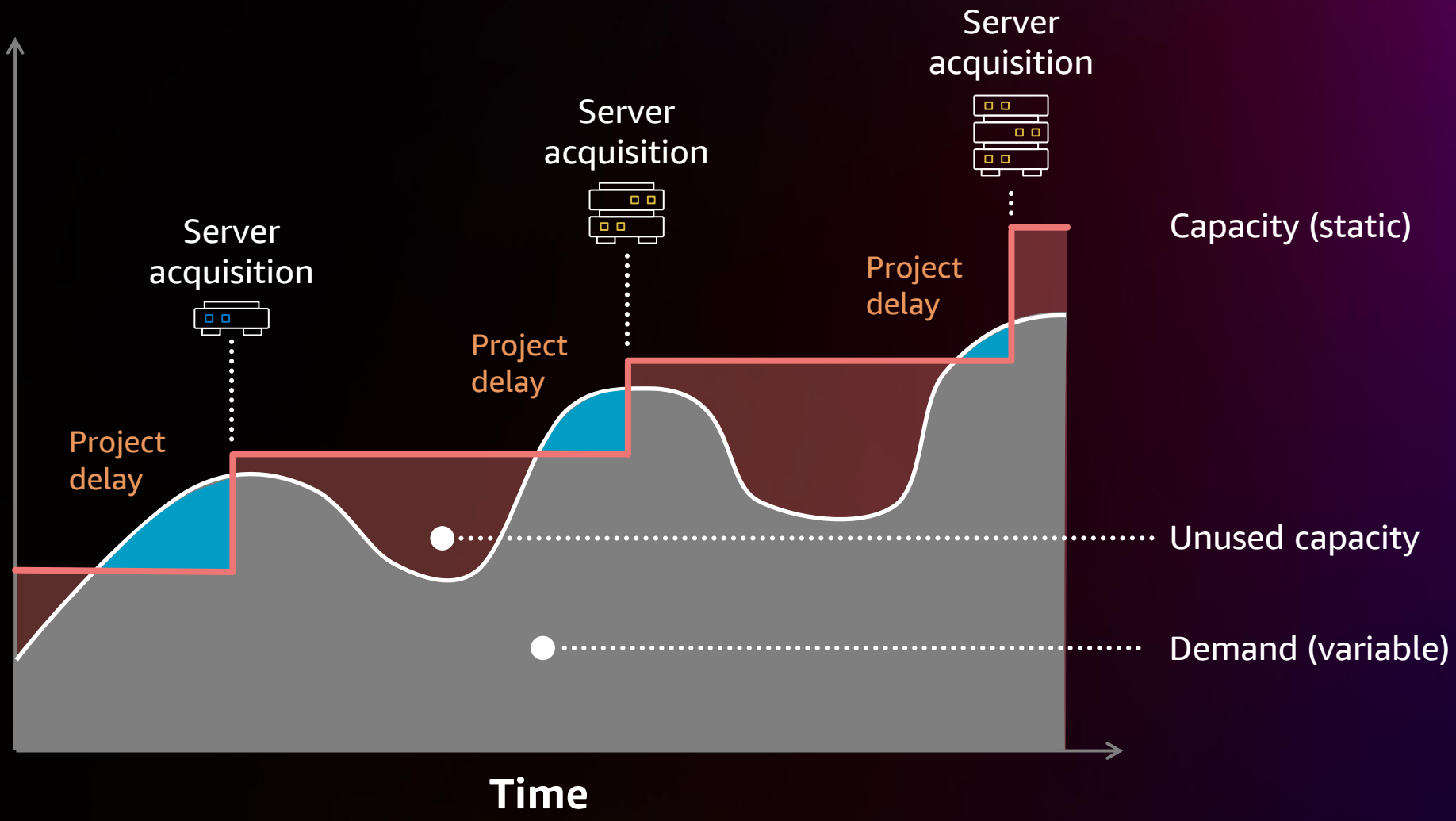
MATCHING CAPACITY TO DEMAND IS CHALLENGING




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# Flexibility

MATCHING CAPACITY TO DEMAND IS CHALLENGING




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# Key decisions we made when moving “all-in”

- Do not break existing workflows or ways of working; maintain look and feel of on-premises environment
- An end-to-end project must run independently and securely in the cloud
- Compute and storage must dynamically scale to meet workload demands
- Must integrate with central shared services

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# Whiteboard

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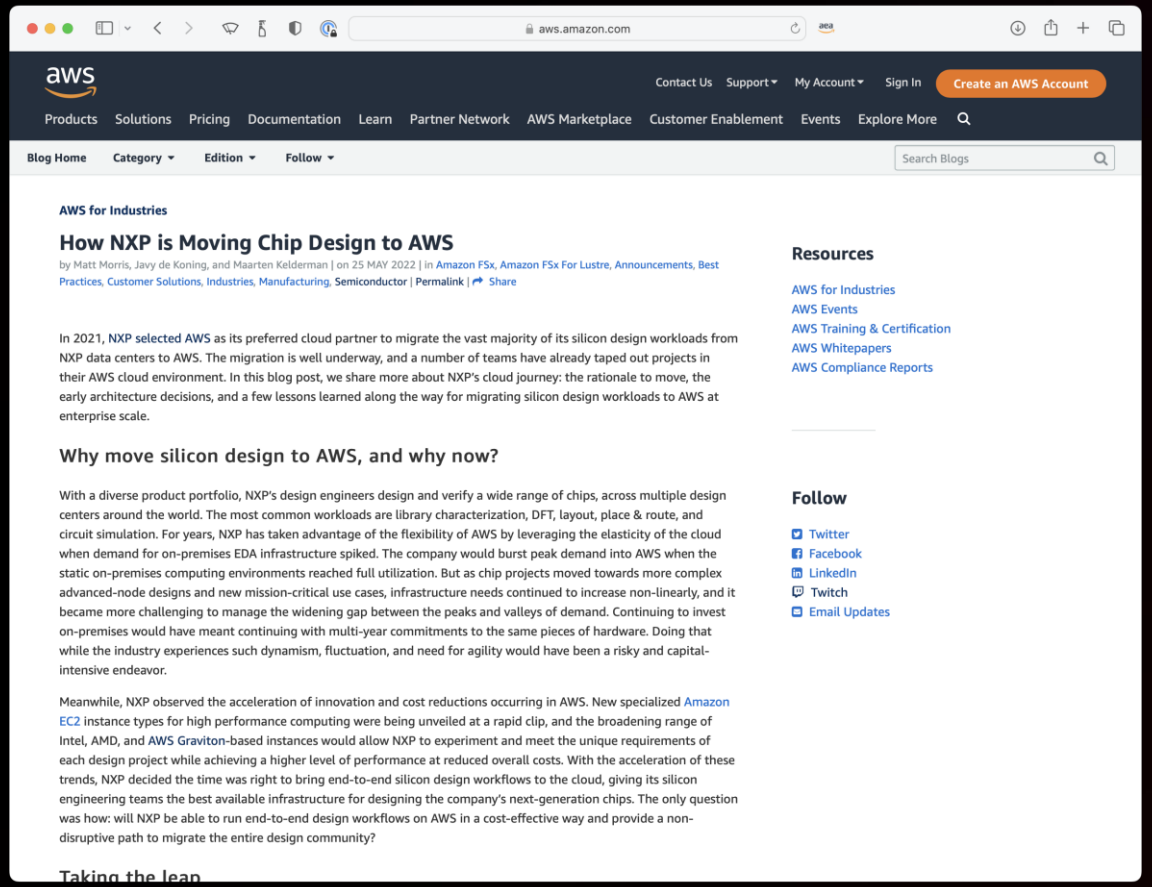
# Lessons learned

- Top-down guidance in the organization that cloud transition is a priority and enables teams to move faster than they would organically
- Maintaining look and feel was crucial to success
- Performance testing of key service from the start was crucial in making proper decisions
- Early preparation for storage migration is vital

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# Blog

## “How NXP is Moving Chip Design to AWS”




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# Thank you!

Jeroen Dekker
jeroen.dekker@nxp.com

Matt Morris
morrmt@amazon.com



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