

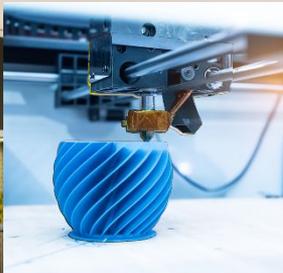
CII IGBC Workshop



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The Dell EMC logo, featuring the word "DELL" in a stylized font with a diagonal line through the "E", followed by "EMC" in a standard sans-serif font.

DELL EMC





Internet in India by 2020

730 Mn internet users



75% of new Internet user
rowth to come from
rural areas

75% of new internet user
to consume content in
local language



Mobile video content to grow
at an 83% CAGR in next
5 years

Number of online shoppers to
become 175 Mn, a 3.5X growth
over 2015



70% of e-commerce transaction via
mobile phones



50% of travel transactions to be
online

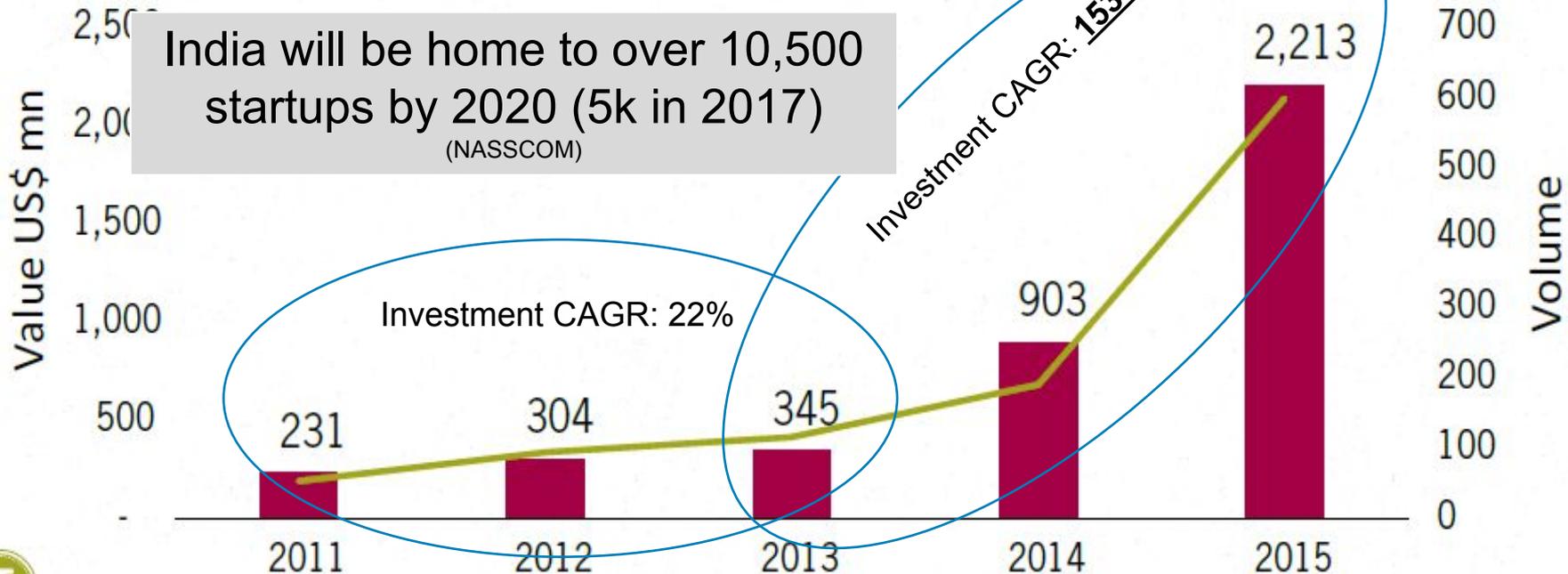




MEGA TRENDS

Startup Investments into India

India will be home to over 10,500 startups by 2020 (5k in 2017)
(NASSCOM)



Average Investment Sizes (US\$ mn)

4

3

3

5

4

Value (US\$ Million) Volume

Digital data in India was around **40K PB** in 2010 and projected to **2.3M PB** by 2020.

2X worldwide growth.

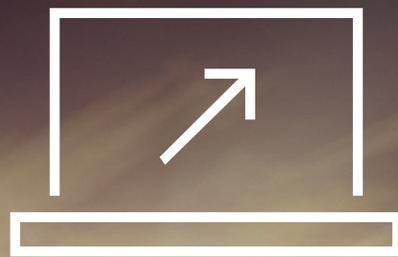
(Cushman & Wakefield)

India will be a \$4.5B data center market by 2018 and will reach \$7B by 2020

(Cushman & Wakefield)



DIGITAL
transformation



WORKFORCE
transformation



IT
transformation



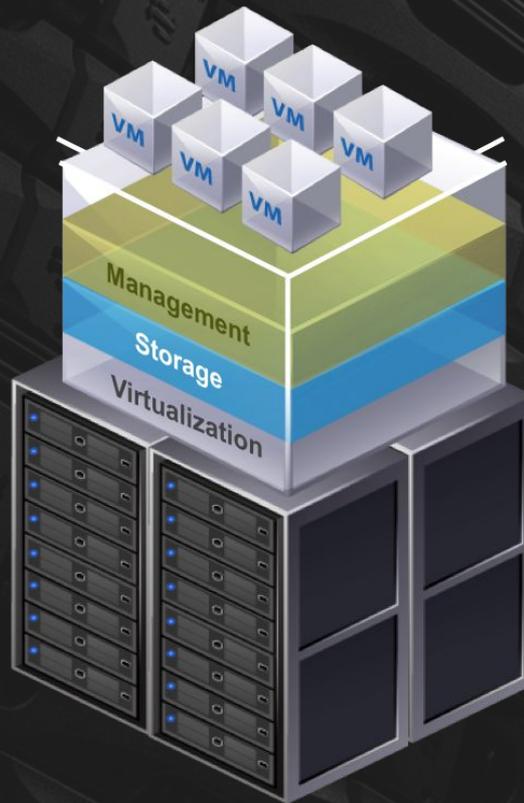
SECURITY
transformation

Hyper Converged Infra

Micro Services

High Performance
Computing

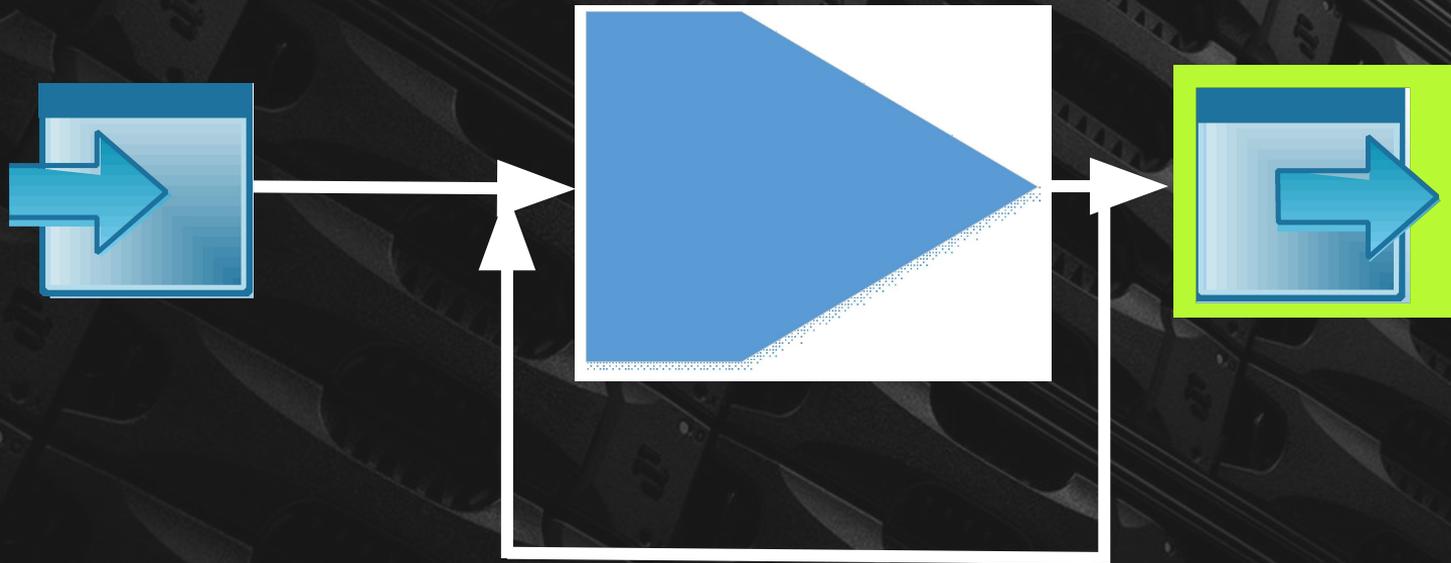
Software Defined
Everything (SDE)

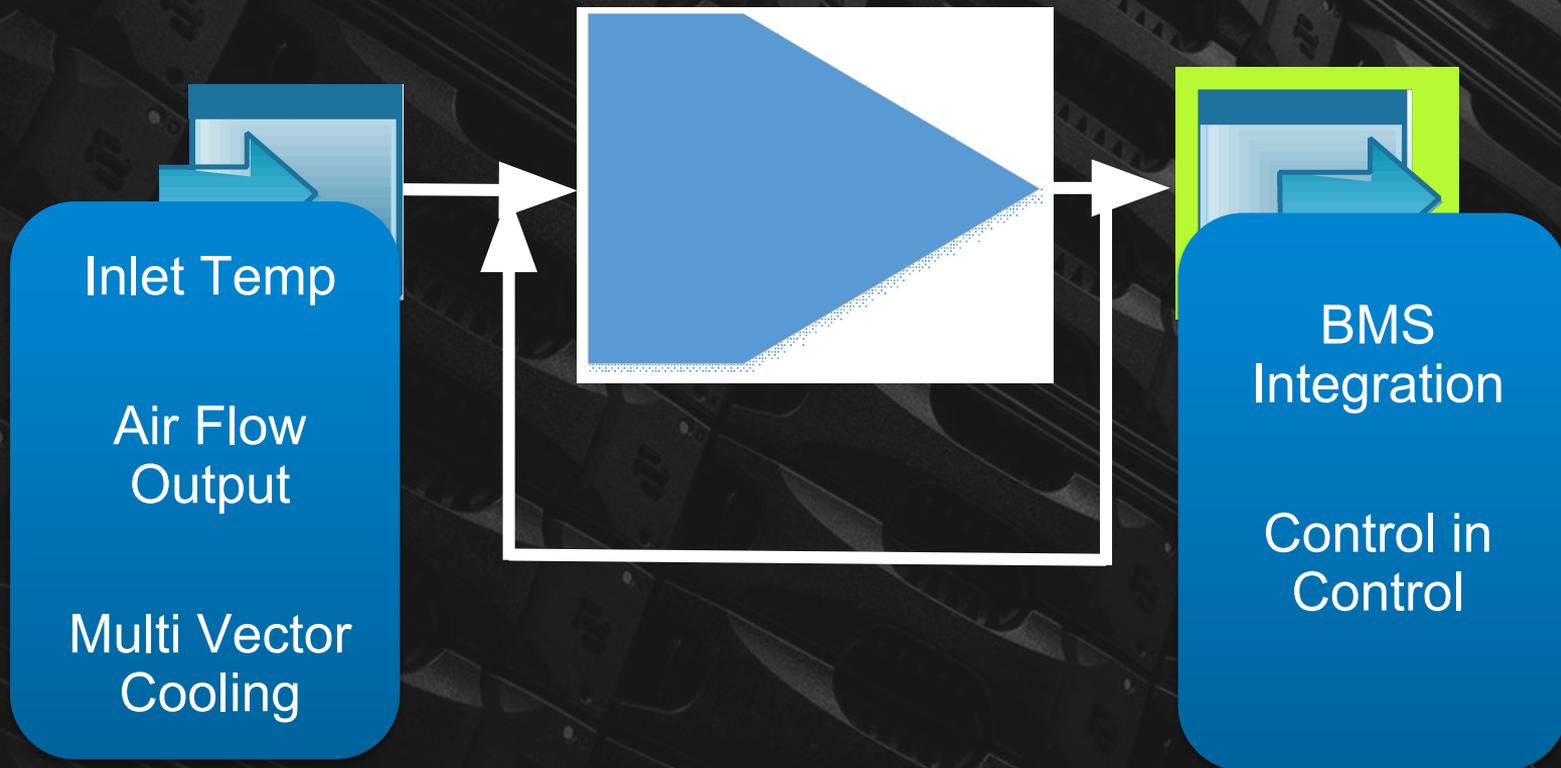


Hyper-Converged
Software



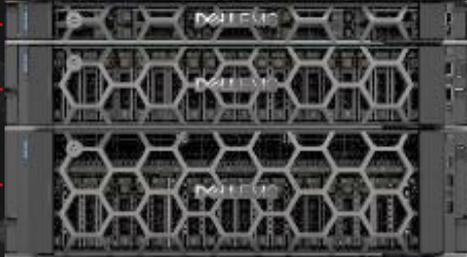
Industry-Standard
Hardware







UPS #1



UPS #2

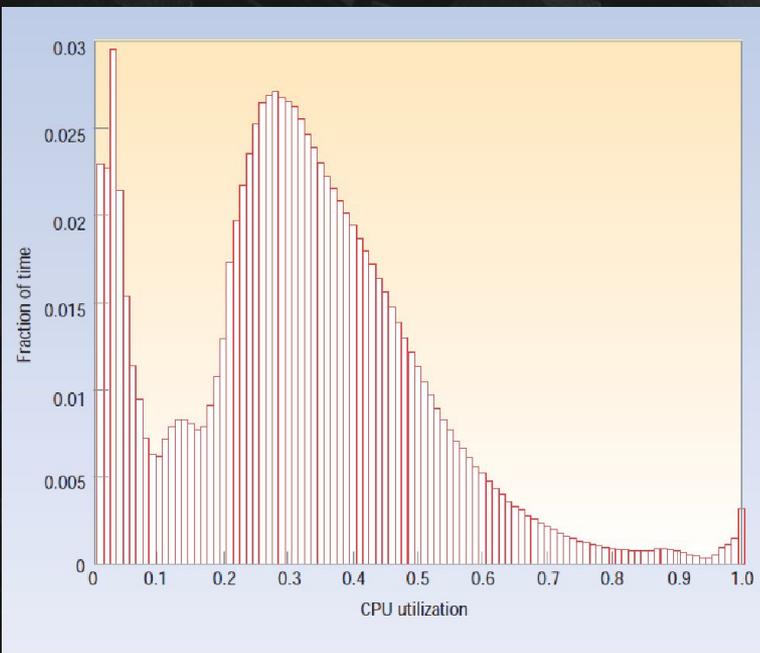


Figure 1. Average CPU utilization of more than 5,000 servers during a six-month period. Servers are rarely completely idle and seldom operate near their maximum utilization, instead operating most of the time at between 10 and 50 percent of their maximum utilization levels.

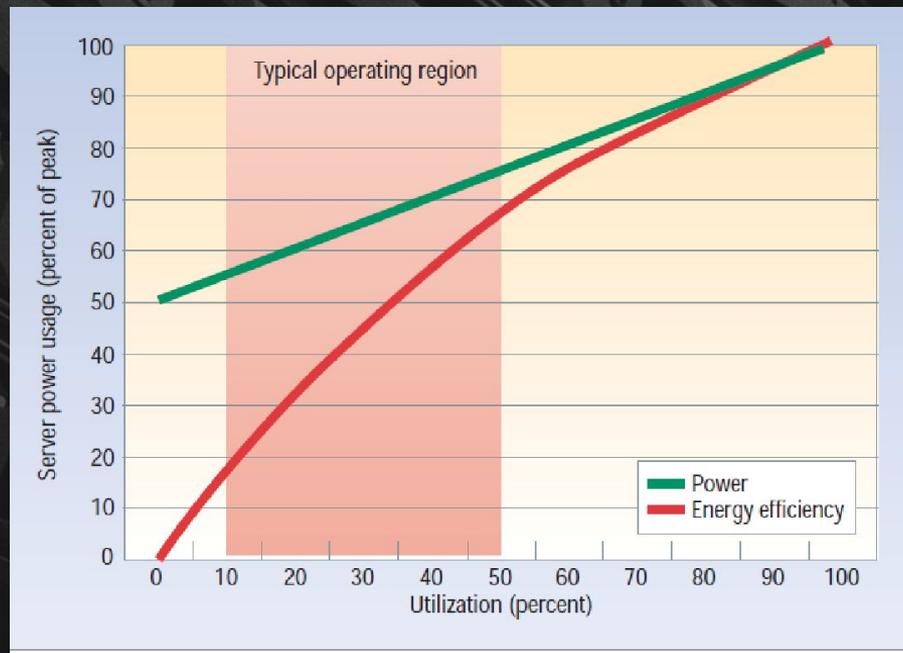


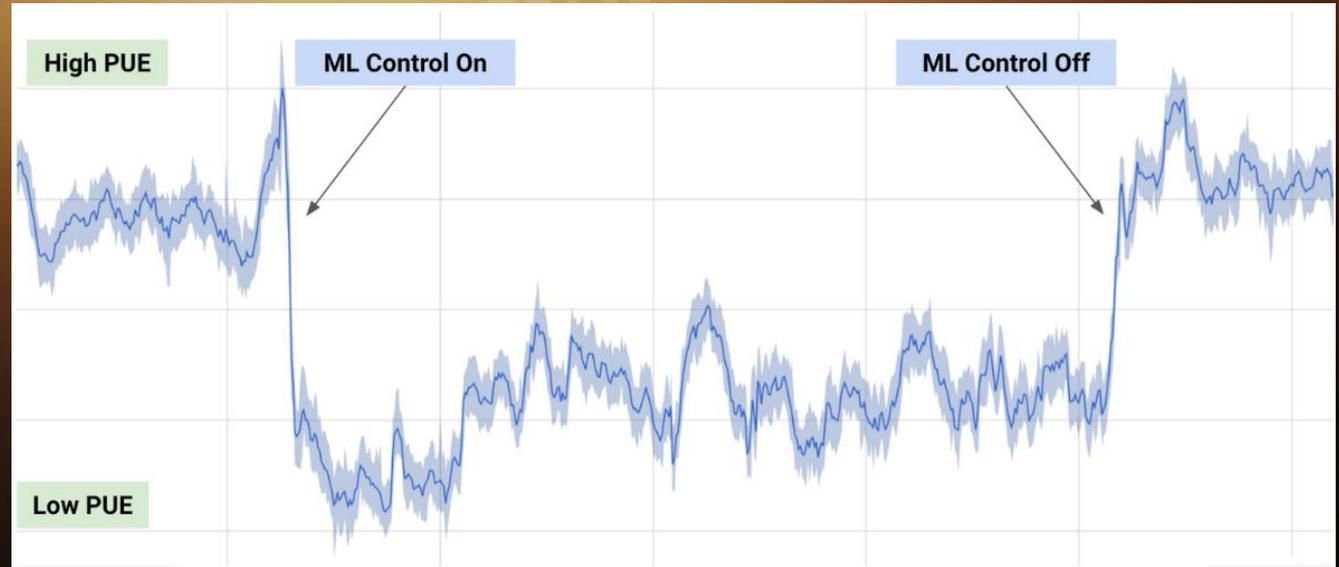
Figure 2. Server power usage and energy efficiency at varying utilization levels, from idle to peak performance. Even an energy-efficient server still consumes about half its full power when doing virtually no work.



INSIGHT BASED CONTROL SYSTEMS

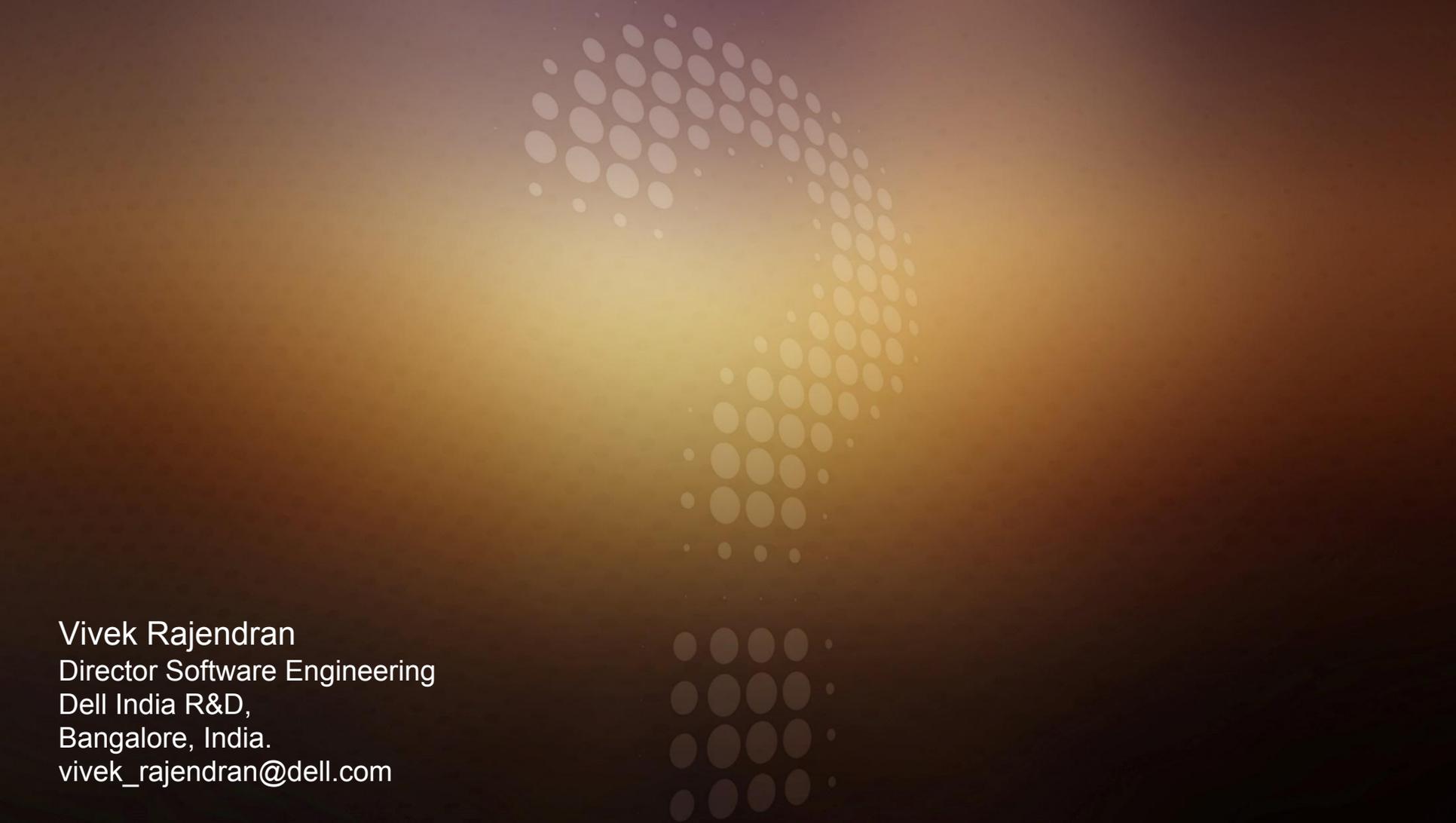
40%

REDUCTION IN GOOGLE'S DATA CENTER COOLING COSTS via DeepMind Artificial Intelligence



Key Takeaway's

- Massive Changes are already on the way
- IT and Facilities are to be Partners
- Leverage Instrumentation at Source
- AI & ML are not only for IT, increase investments here



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Prediction 2: By 2021, 50% of Enterprise Infrastructure Will Employ Some Form of Cognitive and Artificial Intelligence to Improve Enterprise Productivity, Manage Risks, and Drive Overall Cost Reduction

Prediction 9: By 2021, Installed and In-Use Container Instances Will Amount to More Than 3.5 Billion, with Over 20% of Them Running in Distributed Locations Serving Edge and IoT Workloads

Prediction 3: By 2021, in Value Terms, Over 25% of Infrastructure Services Will Have Some Autonomous Self-Managing Capabilities, Expediting Business Outcomes and Mitigating the Risk of Human Error Resulting from Manual Intervention