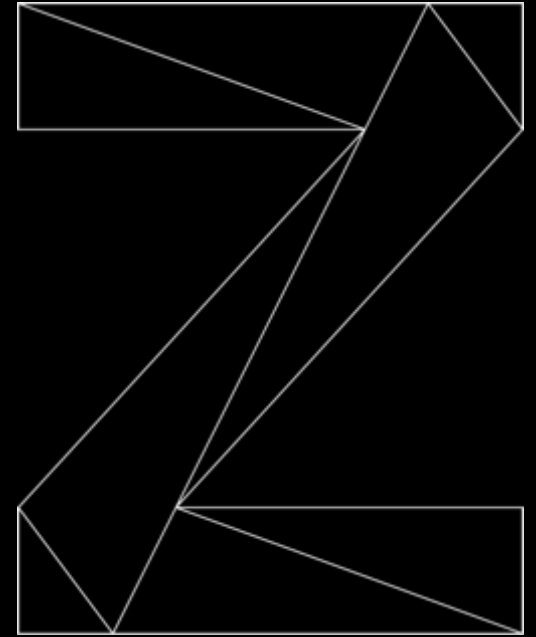# Enterprise Computing

5,787
Tweets

18,519
swipes

20,000+
Photos shared

63,000
searches

1,157,407
IBM Z
transactions

When have you used IBM Z?

DAILY

30 billion
transactions

400 million
retail transactions

1 million
hotel nights

ANNUALLY

29 billion
ATM transactions

87%
of all credit card transactions
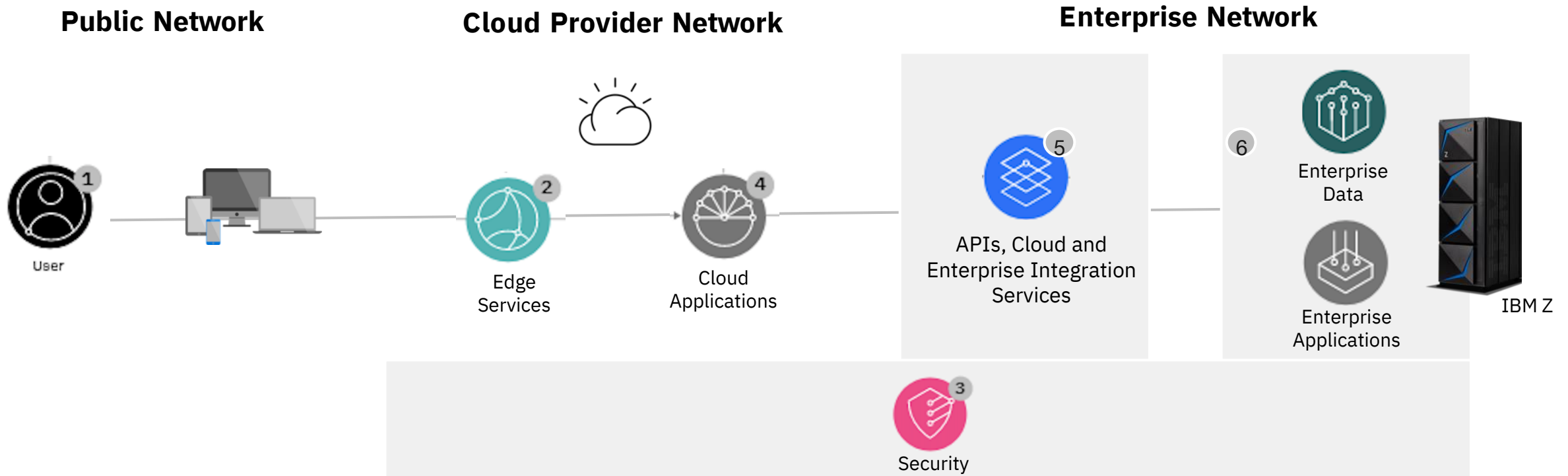
90%
of all airline reservations

$666,652,612,597,862

Payments are the Economy
- Gareth Lodge, CELENT

What is Enterprise Computing and IBM Z?

The systems behind the scenes running apps – from networking to infrastructure

68% of the world's
production IT workloads run
on mainframe systems

Public Network

Cloud Provider Network

Enterprise Network

User 1

Edge Services 2

Cloud Applications 4

Security 3

APIs, Cloud and Enterprise Integration Services 5

6

Enterprise Data

Enterprise Applications

IBM Z

IBM Z: The IT backbone of the world's leading businesses

23
of the top 25 US retailers

92
of the top 100 worldwide banks

23 out of 25
of the world's largest airlines

10 out of 10
of the world's largest insurers

Industry transformation is a challenge for business and for IT

Instant payments

Open access

Embedded services

Digital transformation

Regulation

Cyber threats

Data Privacy

Infrastructure is shifting to a cloud first model

Organizations are facing massive changes to their business

4ˣ

employees were working from home when compared to before COVID (45% of total now, compared to 11% before COVID)

84%

Executives expecting customers to prefer online channels for engagement post-COVID

57%

Customers now seeking environmentally and/or socially conscious products and services

More than
30%

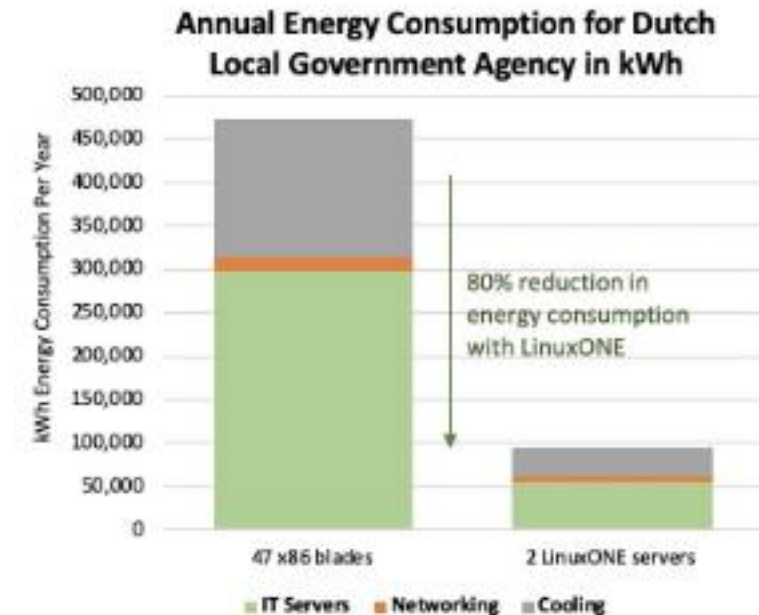of Germany's post-COVID recovery aid program is tied to green initiatives

Responsible Computing

"IBM Europe is changing how **European clients** work by leading them on the journey to **hybrid cloud** and becoming a **responsible, cognitive enterprise**."

Rashik Parmar
IBM Fellow & Vice President Technology

Annual Energy Consumption for Dutch Local Government Agency in kWh

80% reduction in energy consumption with LinuxONE

47 x86 blades

2 LinuxONE servers

■ IT Servers ■ Networking ■ Cooling

Responsible use of natural resources	**Responsible Infrastructure**	**Responsible Code**	**Responsible Data Insights**	**Responsible Systems**	**Responsible Impact**
Reduce environmental impact of data centers	Reduce energy/ computing unit Reduce precious/ rare metal usage Recycling of tech	Efficient coding Open Secure	Privacy Transparency Authorized data acquisition Consent for use	Ethical systems Unbiased Explainable AI	Tech for good Address societal issues Social mobility

Data Privacy: The Next Big Thing

Simplifying data privacy by improving data protection

Of the **14 Billion** records breached since 2013

only **4%** were encrypted [1]

$3.8M

Average cost of a data breach in 2018 [2]

80 +

Data privacy regulations, varying by industry, location, and geo [3]

2/3 of established companies are leveraging fintech capabilities for growth. That number is expected to increase by **20%** in the next three years

- Harvard Business Review Analytic Services

59%

of companies in the US and UK say they experienced a data breach via a third party.

—2018 Ponemon Study on Global Megatrends in Cybersecurity

The EU GDPR is the most important change in data privacy regulation in 20 years

Payment Card Industry Data Security Standard (PCI-DSS)

Health Insurance Portability and Accountability Act (HIPAA)

California Consumer Privacy Act

IBM Z and LinuxONE
Elevating protection for Confidential Computing

Dedicated cryptography

Delivered massive secure transaction throughput

Pervasive Encryption

100% protection of data within the system

Data Privacy Passports

100% protection of data wherever it resides

**No changes to applications
No impact to service levels
Ultimate risk mitigation for Digital business**

Demand for IBM Z and IBM Z Skills

90%	67%	56%	74%	63%
Platform for Growth and long-term applications	X-Large shops have majority of Data on mainframe	Using DevOps on the mainframe	See ROI in 1 year or less with DevOps adoption	Rate Security and Compliance as #1 top priority

Source: BMC Mainframe Survey 2020

Students pursuing careers in technology are focused on five primary things in a potential career.

Enterprise Computing outperforms other IT roles

● Enterprise computing role   ○ Other
computing role

Good salary
Average reported starting salary for enterprise computing is **$70,100** versus $62,950 of other mixed IT roles.
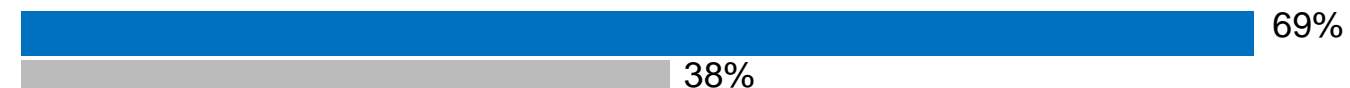
Good work-life balance
A good work-life balance *(% rating 8, 9, or 10 out of 10)*

70%
57%

Ability to make a social impact
Social impact, for example, the ability to contribute to open source, social, or community groups, with your technical skills

69%
38%

Working on something that aligns with primary interests in technology
Opportunity to work with leading-edge tech

70%
57%

Job security/role versatility
Nearly **90%** of professionals in enterprise computing careers agree the job market for their skill set is growing, and **75%** believe there is a shortage (i.e., high demand) for their skill.

Enterprise Computing enables you to work in a wide variety of areas….

Hybrid Cloud

Within 5 years, more than 50%+ of U.S. P&C insurers will put new core systems in the cloud.

Analytics

Insurers are expected to spend approximately $8.3B, or 8% of their overall spending, with big data and analytics vendors in 2019, growing to $11.5B in 2022

Blockchain

Insurance Blockchain market is expected to grow to $1.4B by 2023, at a CAGR of 85%

Insurtech

VC investments almost doubled in last two years, 1.7B in 2016 to $3B in 2018

Artificial Intelligence

AI spend from spend $1.1B , in 2019 to $2.6B in 2022

Internet of Things

Insurance industry is expected to spend $7.7B on IoT in 2019, growing to $12B in 2022.