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# Trusted Computing: Hardware Security and Confidential Computing For Server Platforms

Authors

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# The Cyber Resilience Imperative

Cyber attacks are growing in volume, variety, and precision, and are a cause of significant business disruption.



Ransomware



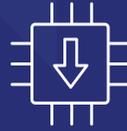
Supply Chain



Malware



Identity Theft



Host Software and Firmware Threats

**54%** of organizations have experienced an increase in cyber attacks in the past 12 months.



Source: IDC European Security Survey, 2022

For more information visit:



[www.amd.com/en/technologies/infinity-guard](http://www.amd.com/en/technologies/infinity-guard)



[www.amd.com/security](http://www.amd.com/security)

2022

CEO View:  
No1 Business Risk

2024



Cybersecurity Threats



Cybersecurity Threats

## CEOs' Perspective:

- Cybersecurity threats the foremost business risk over the next two years.
- Recognize that security must keep pace with digital infrastructure investment.



Source: IDC WW CEO Sentiment Survey, 2022

# Protecting IT Infrastructure is a Priority

The shift to a digital-first strategy is driving strong IT infrastructure investment.



# 79%

of companies are looking to increase their spend on IT infrastructure through 2022 and into 2023.



Source: IDC Digital Infrastructure Survey, 2022

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## Top 2022–2023 IT Infrastructure Priorities

1. improved security and compliance



2. enhanced agility and flexibility



3. Better automation and orchestration



# Cloud Adoption Accelerators and Road Bumps

**84%** of European organizations operating a combination of on-premises IT and public cloud infrastructure.



## 2022: How Cloud Technology is Supporting Organizations

- 1 Cost reduction
- 2 Modernization of applications
- 3 Platform to develop new products and services

## 2022: Top Trust Concerns Impacting Cloud Strategy

- 1 Security of data
- 2 Privacy compliance
- 3 Data sovereignty (Cloud Act/Schrems II)

Source: IDC European Multicloud Survey, 2022

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# Trusted Computing: Hardware Platform Security

Protecting IT infrastructure requires a holistic approach that builds security from the processor to the cloud across hardware, firmware, and the operating system.

**The right hardware security can help harden IT service delivery**



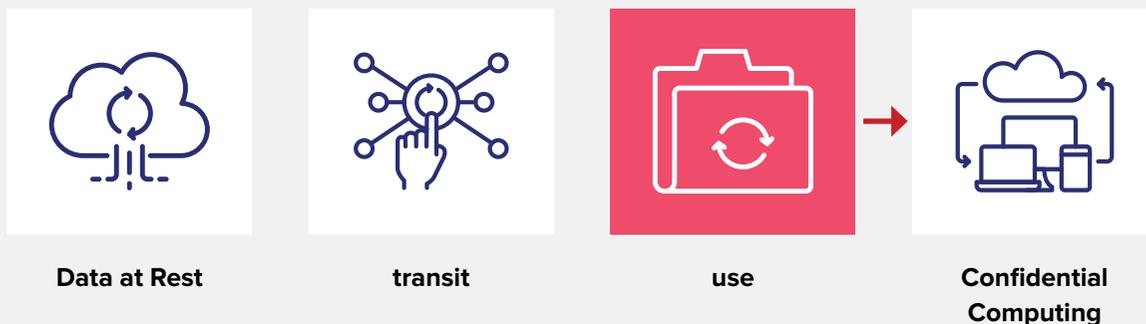
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# Confidential Computing — Data-in-Use Hardware Protection

## Closing the data security gap



Confidential Computing: Secure hardware-based computing environment that allows data and applications to be protected while being processed. The secure processor protects the encryption keys and ensures their secure use.

## Top factors for adopting confidential computing in the cloud



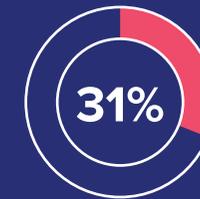
Improve container-based application security



Achieve real-time data-in-use encryption



Protect VMs against malware/ransomware



Cloud service provider doesn't have access to data

Data and application inaccessible to third party hosting the CPU.