

Akamai IPCC RCP Summary

2025 Revision



Summary of findings

Akamai Technologies operates one of the world's largest distributed computing platforms, providing critical services in cloud computing, security, and content delivery. As climate change accelerates, the company faces significant risks and opportunities that could impact its core businesses. Our research report, "Adapting to Climate Change: IPCC RCP Analysis for Akamai Technologies," provides a comprehensive analysis of the potential impacts of climate change on Akamai's operations under seven climate scenarios, known as Representative Concentration Pathways (RCPs): 1.9, 2.6, 3.4, 4.5, 6.0, 7.0, and 8.5. These scenarios represent varying levels of greenhouse gas emissions and their associated effects on global temperatures, sea levels, and weather patterns through the year 2100. By analyzing these scenarios, Akamai can better prepare for a wide range of possible futures and align its sustainability goals accordingly.

Our analysis focuses specifically on how climate change will affect Akamai's three key business units: cloud computing, security, and content delivery. The detailed research outlines the vulnerabilities these areas may face under different RCP scenarios while highlighting opportunities for innovation and leadership in the transition to a low-carbon economy. Additionally, it offers adaptation strategies to ensure Akamai's resilience in the face of growing climate risks, from investing in energy-efficient technologies to mitigating operational risks in regions prone to climate-related disruptions.

Key climate risks and opportunities

The research evaluates the risks Akamai faces across different regions and business operations, and provides an in-depth look at the global climate risks posed under each RCP scenario. The analysis includes:

RCP scenarios

Seven RCP scenarios are examined, ranging from low-emission pathways (RCP 1.9) to high-emission, business-as-usual pathways (RCP 8.5). The effects of these scenarios include temperature increases of up to 5°C by the year 2100, sea-level rise of up to 1.1 meters, and increased frequency of extreme weather events such as heat waves, floods, storms, and wildfires.

Global impacts

The analysis spans multiple global regions, focusing on key metropolitan areas critical to Akamai's operations:

- **North America:** Cities like Miami, New York, Los Angeles, and Dallas face increasing risks from heat waves, hurricanes, and sea-level rise under higher RCPs.
- **Europe:** Amsterdam, Frankfurt, London, and Paris are vulnerable to extreme heat, flooding, and sea-level rise.
- **Asia-Pacific (APJ):** Cities like Chennai, Singapore, and Jakarta face extreme heat, monsoon flooding, and sea-level rise.
- **Latin America (LATAM):** São Paulo, Buenos Aires, and Mexico City face risks from heat waves, floods, and water shortages, while Rio de Janeiro faces coastal flooding.

Risks to Akamai's core business units

- **Cloud computing:** Data center vulnerability increases under all RCP scenarios, due to rising cooling demands, energy supply disruptions, and physical damage from storms and floods. Data centers in coastal and heat-prone areas face the highest risks under RCP 6.0–8.5.
- **Security:** Cybersecurity threats and physical security risks grow under RCP 4.5 and higher, as climate-induced disruptions may lead to network outages, creating vulnerabilities.
- **Content delivery:** Network infrastructure could be damaged by extreme weather events, leading to increased latency and bandwidth issues, especially under RCP 6.0–8.5. Opportunities include deploying edge computing and adaptive routing technologies to mitigate these risks.

Adaptation strategies for key metros

To address the region-specific impacts of climate change, the report offers tailored adaptation strategies for Akamai's critical business metros:

North America

- Fortifying data centers in coastal cities such as Miami and New York to withstand sea-level rise and hurricanes.
- Implementing renewable energy solutions and advanced cooling systems to manage the impacts of heat waves and rising temperatures.

Europe

- Addressing sea-level rise risks in Amsterdam and London by fortifying infrastructure and enhancing flood defenses.
- Investing in renewable energy and AI-based cooling systems to improve energy efficiency and resilience in cities like Frankfurt and Paris.

Asia-Pacific (APJ)

- In cities such as Chennai, Singapore, and Jakarta, Akamai should invest in infrastructure fortification against heat waves and floods, optimize water usage in cooling systems, and adopt renewable energy solutions.

Latin America (LATAM)

- São Paulo and Buenos Aires face rising heat and water stress; recommended actions include relocating vulnerable data centers, adopting renewable energy, and optimizing water-efficient cooling systems.

Financial exposure

The financial analysis contained in the research offers a comprehensive view of the potential cost implications for Akamai under different RCP scenarios, shedding light on how evolving climate risks may influence our financial and operational strategies. As climate-related challenges intensify under higher RCP pathways, such as RCP 6.0 to 8.5, there is a possibility of increased operational and capital expenditures under various levels of power consumed across the globe. These increases could be linked to the need for infrastructure enhancements to better withstand the projected rise in extreme weather events, including floods and heat waves.

Moreover, data center providers, integral to our service delivery, may consider adjusting their cost structures in response to their own investments in climate adaptation and resilience measures. These adjustments could potentially lead to pass-through cost increases ranging from as low as 0% to as much as 30%, as providers explore options like strengthening flood defenses, upgrading cooling systems to cope with higher temperatures, and integrating more renewable energy solutions.

To mitigate these potential cost impacts, Akamai is committed to closely monitoring the evolving cost structures and negotiating with providers to manage expenses proactively. We will also explore opportunities for strategic partnerships that can enhance our resilience while keeping costs manageable. By continuously analyzing financial data and scenario projections, we aim to identify early indicators of significant cost shifts and implement measures to mitigate financial risks effectively, ensuring our operations remain both sustainable and cost-efficient.

Alignment with our sustainability goals

The report emphasizes that Akamai's sustainability goals are essential in mitigating climate risks and seizing opportunities:

- **100% renewable energy transition:** Achieving 100% renewable energy by 2030 (RCP 1.9) or by 2040 (RCP 3.4). Akamai should prioritize investments in large-scale solar and wind energy projects and leverage renewable energy contracts.

- **Net-zero emissions:** Net-zero emissions are critical to all RCP pathways, with aggressive investments required in carbon capture technologies and carbon offsets.
- **Efficiency and circularity:** Working with our partners to encourage retrofitting existing data centers with energy-efficient technologies such as liquid cooling systems and AI-powered energy management will help meet sustainability targets. Additionally, embracing circular economy principles, like server recycling and hardware lifecycle management, can significantly reduce waste.
- **Supplier engagement:** Reducing Scope 3 emissions by requiring suppliers to adopt sustainability certifications like The Climate Pledge, ISO 14001, or Science Based Targets initiative (SBTi) is essential to address climate risks across the supply chain.

CSRD and double materiality framework alignment

EFrag overview and Akamai's alignment

The European Financial Reporting Advisory Group's (EFRAG) Corporate Sustainability Reporting Directive (CSRD) introduces comprehensive sustainability standards under the European Sustainability Reporting Standards (ESRS). Akamai's alignment with these standards through our data center partnerships enhances our resilience strategy and solidifies our commitment to climate accountability.

Key ESRS disclosure requirements

Akamai addresses several key ESRS areas through collaborative efforts with data center partners:

- **ESRS E1 (climate mitigation and adaptation):** Our partnerships target emissions reduction, renewable energy integration, and energy efficiency, aligning with ESRS E1 on climate risk mitigation.
- **ESRS E2 (pollution prevention):** Low-emission technologies and pollution controls through advanced cooling and clean energy initiatives with partners fulfill ESRS E2.
- **ESRS E3 (water resources):** While Akamai does not directly control water usage, we work with data center partners to encourage efficient water management in regions facing water scarcity, meeting ESRS E3's sustainable resource use requirements.
- **ESRS E4 (biodiversity):** We prioritize biodiversity by working with data center partners to minimize ecological impact, supporting ESRS E4 on responsible land use.

Cross-industry collaboration: Public policy and industry engagement

Akamai actively collaborates with industry organizations such as the Clean Energy Buyers Association (CEBA), Ceres BICEP Network, and the Information Technology Industry Council (ITI) to advocate for sustainable energy policies and climate resilience. These partnerships enable Akamai to contribute to industrywide efforts in promoting renewable energy adoption, enhancing energy efficiency, and supporting climate-resilient policies that align with our operational goals and environmental commitments.

Through CEBA, Akamai collaborates with other companies to advance access to renewable energy sources, helping to drive down costs and increase renewable capacity in key markets. CEBA's initiatives

align with Akamai's mission to reach 100% renewable energy, and our involvement supports policies that facilitate the transition to a cleaner energy grid.

As a member of the Ceres BICEP Network, Akamai engages with policymakers to support climate policies that encourage emissions reduction and resource efficiency. Through this network, we join a broad coalition of businesses advocating for ambitious climate action that benefits both industry and society, fostering resilience in our global data center operations.

Our partnership with the ITI enables us to collaborate with technology leaders and government bodies, focusing on shaping policies that support climate resilience within the tech sector. By working closely with ITI, we ensure that our industry's specific needs for energy efficiency and resilience are represented in policy discussions, allowing Akamai to influence regulatory developments that impact data center sustainability worldwide.

Actionable recommendations

To build resilience and ensure cost-effective operations, Akamai is prioritizing the following strategies:

- 1) **Disaster recovery and resilience:** Implement redundancy in critical infrastructure, enhance disaster recovery plans, and diversify data center locations to lower climate risks.
- 2) **Edge computing:** Maximize the use of edge computing to reduce dependence on centralized data centers and improve resilience to extreme weather disruptions.
- 3) **Cross-industry collaboration:** Partner with organizations such as Clean Energy Buyers Association (CEBA), Ceres BICEP Network, and ITI to advocate for renewable energy, energy efficiency, and climate-resilient policies.
- 4) **Energy efficiency innovations:** Work with data center partners to deploy AI-driven cooling systems, liquid cooling, and energy-efficient hardware across all data centers to reduce operational costs and energy usage.
- 5) **Employee and community engagement:** Foster a culture of sustainability within Akamai by embedding sustainability goals into employee assessments and promoting corporate social responsibility (CSR) programs aimed at environmental education and community resilience.

The future

As climate change continues to shape the future, Akamai will continue to adapt its operations to mitigate risks and leverage emerging opportunities. Our research supports the concept that by aligning with ambitious climate pathways such as RCP 1.9, Akamai can be a leader in the industry in sustainability, securing its position as a resilient, innovative company in a carbon-constrained world. Implementing the recommendations from this report will allow Akamai to continue thriving while making meaningful contributions to the global fight against climate change.

Want to learn more?

Visit akamai.com/sustainability to learn about our approach to building a more sustainable future.