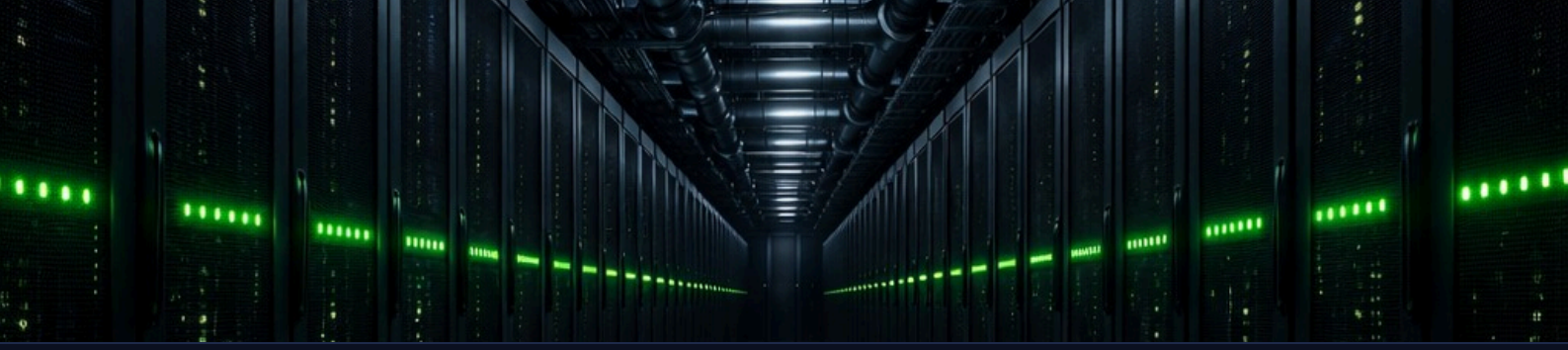


COMPUTE TERMINAL

RESEARCH NOTE · 13 NOV 2026

AI rides on old plumbing

Microsoft 365 has been degraded for 18 hours. Nothing in Microsoft's updates points to a datacentre, chip or model failure. What failed was the front end for email, and Copilot and the OpenAI and Anthropic connectors failed with it.

Compute Terminal Research · status as of 10:40 UTC, 13 Nov 2026

THE NOTE IN FIVE LINES

1. **The failure was in the front end, not in the AI stack.** Exchange Online's front-end servers began dropping out at 16:17 UTC on 12 Nov. Microsoft says a process that sets up secure connections was overwhelmed, and that it sees no sign of an attack.
2. **The AI layer failed with it.** Microsoft 365 Copilot is on Microsoft's list of affected services: Copilot Chat may not load, answer or reach mail, calendar and files. OpenAI and Anthropic each reported failures in their Microsoft 365 connectors.
3. **A second model vendor was no hedge.** All three assistants reach the same mailboxes through the same Microsoft front end. Licensing more than one model diversifies the model, not the data path.
4. **The contractual cost is capped; the timing is poor.** Service credits stop at one month's fee for the affected service and have to be claimed. Microsoft Ignite, its main enterprise conference, opens on 17 Nov.
5. **Microsoft's own uptime table is the gauge.** Worldwide Microsoft 365 uptime was 99.526% in the first quarter of 2026, the lowest quarter in its published record, and 99.994% in the second. The fourth-quarter figure will show how far this outage reached.

Time since the Exchange Online incident began, at 10:40 UTC on 13 Nov

18 h 23 min

From 16:17 UTC on 12 Nov; not declared resolved. Source: Microsoft incident EX1550543 as reported by Benzinga and azureblog.co.uk, 13 Nov 2026

Microsoft 365 worldwide uptime, first quarter 2026

99.526%

Worth about 614 minutes of a 90-day quarter; 99.994% in the second quarter. Source: Microsoft, service health and continuity page; Compute Terminal calculation

Paid Microsoft 365 Copilot seats, as stated on 29 Jul 2026

over 30m

Source: Microsoft results call for the quarter to 30 Jun 2026

What failed, in order

Time, UTC	What Microsoft reported
12 Nov 14:45	A separate Teams incident in the Americas opens and is resolved by 15:53. Microsoft has not said whether it is related.
16:17	The Exchange Online incident begins: users cannot reach mailboxes through several connection methods.
18:00–18:26	Outlook problem reports on Downdetector peak above 130,000 and come from 74 countries and territories. Microsoft opens a wider incident for services that depend on Exchange Online, Copilot among them.
19:06–19:43	Deployments are paused. Microsoft says the load is not from higher traffic: servers are failing automated health checks and dropping out, which strains those that remain.
13 Nov 00:00	Servers returned to service “can become unresponsive again once they receive traffic”.
01:00–03:00	Microsoft names the overwhelmed process, the one that establishes secure connections, and starts reverting a recent network configuration change. By about 03:00 it says its changes are not working as expected.
07:30–10:30	A patch to an authentication and routing component steadies part of the fleet. Microsoft reports early stabilisation, then incremental improvement, with capacity still below its baseline; delayed email will keep retrying for up to 48 hours.

Times are approximate where Microsoft gave none. Sources: Microsoft 365 Status posts and service-health incidents, as reported by the outlets listed at the end of the note; Downdetector as reported by Dow Jones Newswires and AP.

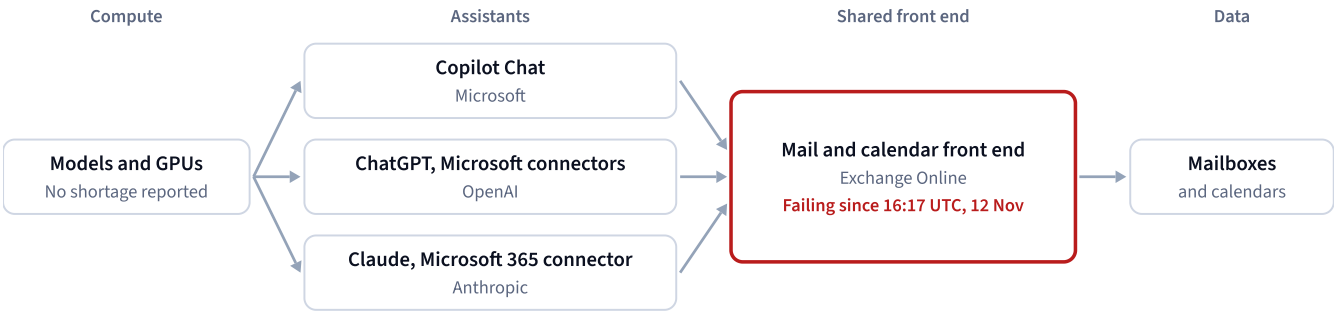
The AI layer inherits the weakest link

Exchange Online is one of the oldest services in Microsoft's cloud. Its front ends accept the connections for Outlook and for every other product that reads mail and calendar data. Microsoft told administrators that features which depend on Exchange Online were affected and features which do not kept working: Teams chat and meetings stayed largely available and SharePoint files still opened.

Copilot sits on the dependent side of that line. An assistant for work is only as useful as its access to the user's mail, calendar and files, and Microsoft's advisory says Copilot Chat may not load or answer and may not reach that data. Microsoft has reported no shortage of model or GPU capacity. On the evidence so far the compute was there and the product was not.

The same held outside Microsoft. OpenAI said new connections to its Microsoft connectors could fail and tools might not work. Anthropic said email, calendar and search in its Microsoft 365 connector were failing for most requests. A company that licenses two or three assistants on top of one Microsoft 365 tenant has diversified its models, not its data path.

Three assistants, one data path



Schematic. Sources: Microsoft service-health incident MO1550821; OpenAI and Anthropic status notices of 12–13 Nov 2026 as reported by Reuters and Forbes.

> **Our reading of the mechanism, which Microsoft has not confirmed.** This looks like a reconnection storm. When front ends drop out, every client retries, and each retry begins with a secure-connection handshake, one of the costliest things a front end does. A server brought back empty meets the whole queue at once. That would explain why restarts and extra capacity did not hold, why Microsoft reported a traffic spike partly caused by its own rerouting, and why it moved to limiting some traffic and readmitting it in stages.

What we do not know yet

Microsoft has not confirmed a root cause; the network configuration change is a correlation it is testing. It has not said whether the earlier Teams incident is related, how many tenants were affected or when service will be fully restored. Azure is not on its list of affected services.

Availability multiplies along a chain

Expected downtime in a 30-day month, links in series at 99.9% each



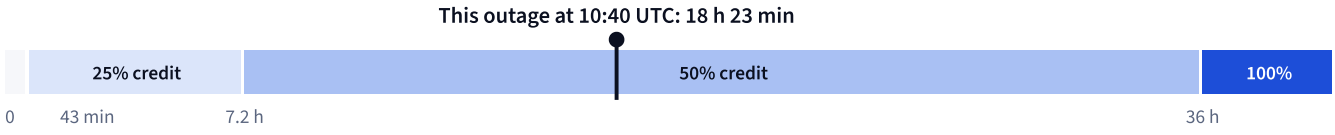
Compute Terminal arithmetic over 720 hours. Not a measurement of any service.

A chat window crosses one or two such links. An agent that reads mail, checks a calendar, queries a file store and writes back crosses more, and the links it picks up are the older ones. The chart assumes that each link fails independently and meets its target. This week one did not.

What it costs Microsoft

Microsoft's online-services agreement commits Exchange Online to 99.9% uptime a month. Below that a customer may claim a credit of 25% of the month's fee for the service, 50% below 99% and 100% below 95%. November has 720 hours, so the three lines sit at 43 minutes, 7.2 hours and 36 hours of downtime. A tenant with no access to Exchange Online for the 18 hours to 10:40 UTC stands at 97.4% for the month: the 50% tier, pro-rated to Exchange Online where it is sold inside a suite, and only on a claim.

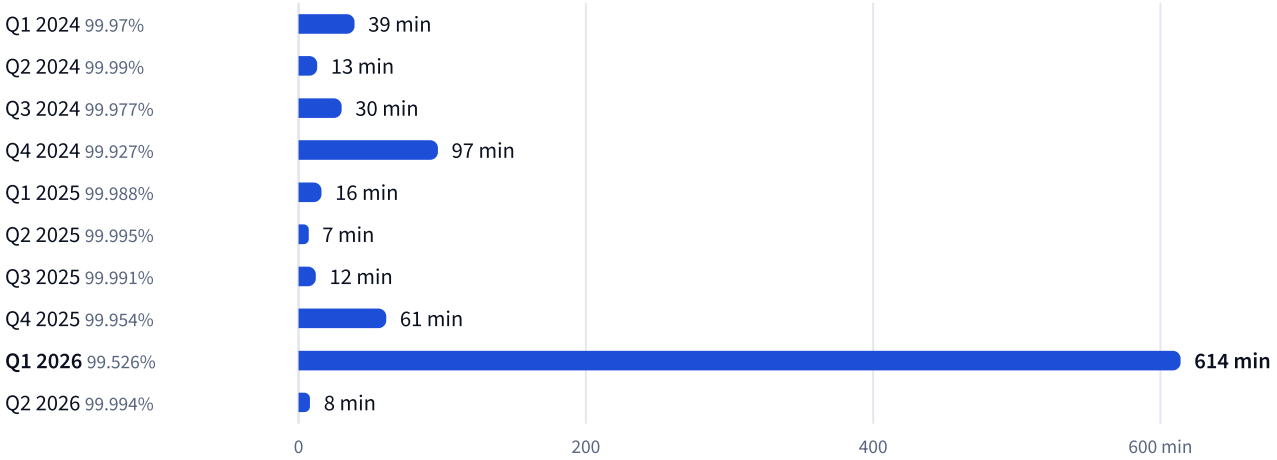
Hours without Exchange Online in November, and the credit a tenant may claim



Source: Microsoft, Service Level Agreement for Microsoft Online Services, as summarised on Microsoft Learn; Compute Terminal calculation for a tenant with no access for the whole period.

The credit is bounded. The larger exposure is commercial. Microsoft counted more than 450 million paid Microsoft 365 seats in January and over 30 million paid Copilot seats in July, and it now sells a suite that bundles Copilot with identity and agent management. Consolidating on one integrated suite concentrates the failure domain along with the spend. The shares closed at US$523.00 on 12 Nov, up 0.4% on the day, and were between 2.3% and 2.7% lower in pre-market trading on 13 Nov.

Microsoft 365 worldwide uptime by quarter, and the downtime it implies



Source: Microsoft, service health and continuity page (last updated 21 Jul 2026), read 13 Nov 2026; Compute Terminal calculation, (1 − uptime) × minutes in the quarter. The figure blends all workloads and commercial regions. The third quarter of 2026 is not yet published.

In nine of the ten quarters to June 2026 the shortfall was worth between 7 and 97 minutes. In the first quarter of 2026 it was worth 614 minutes, about 10 hours.

Read-through, from grid to token

- **Buyers of AI capacity.** Specify availability for the workflow, not the model endpoint: list the identity, data and network services each agent crosses, and what it does when one is missing. A second model vendor on the same tenant is not a second path.
- **Operators and neoclouds.** GPU-hour uptime is what an operator quotes; end-to-end availability is what its customer experiences. Three of the largest cloud disruptions of late 2025 began in software that manages names, configuration or traffic: a DNS automation fault at AWS on 20 Oct, a configuration change in Azure Front Door on 29 Oct and a generated configuration file at Cloudflare on 18 Nov. On Microsoft's account so far, this one belongs with them. None began with power, cooling or accelerators.
- **Investors and lenders.** Capacity is announced in gigawatts and GPUs; availability is decided in the control and traffic layers, which cost little next to accelerators and are easy to under-resource. Ask what an operator spends there and whether it publishes its post-incident reviews.
- **Public sector.** Government systems were disrupted in Japan, New Zealand, Singapore and Australia and at the US House of Representatives. Expect this outage to be cited in sovereign-cloud and multi-provider procurement.

What to watch

When	Event	Why it matters
After resolution	Microsoft's post-incident reviews: preliminary within 48 hours, final within five business days	Whether the network configuration change is confirmed as the trigger, and what Microsoft changes.
17–20 Nov	Microsoft Ignite, San Francisco	How Microsoft addresses resilience in front of its enterprise customers.
Early 2027	Microsoft's fourth-quarter uptime figure	Whether 2026 has a second weak quarter.

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Method. Times are UTC and are Microsoft's incident times where it has given them. Elapsed time runs from the start of the Exchange Online incident to the as-of time on the cover. The service-credit arithmetic assumes a tenant with no Exchange Online access for the whole period; partial loss counts for less. Implied downtime is (1 − published uptime) × minutes in the quarter. The chain chart is 0.999 to the power of the number of links. The data-path figure is a schematic. This note gives no ratings and no valuation targets.

Sources. Microsoft 365 Status posts and service-health incidents TM1550488, EX1550543 and MO1550821, 12–13 Nov 2026, as reported by azureblog.co.uk, BleepingComputer, ABC News, XDA, NBC News, CNBC, CNN, ITdaily and MT Newswires. Downdetector as reported by Dow Jones Newswires, AP and Benzinga. OpenAI and Anthropic status notices as reported by Reuters, 12 Nov, and by Dow Jones Newswires and Forbes, 13 Nov. Government statements as reported by AP, AFP and Reuters, 13 Nov. Microsoft, Service Level Agreement for Microsoft Online Services, as summarised on Microsoft Learn. Microsoft, service health and continuity page (worldwide uptime; post-incident reviews). Office 365 for IT Pros, 22 Apr 2026 (paid seats; uptime record since 2013). Microsoft results call, 29 Jul 2026 (Copilot seats, suite). Share price: Alliance News and Dow Jones Newswires, 13 Nov. AWS post-event summary, Oct 2025; Reuters, 29 Oct 2025 (Azure Front Door); Cloudflare post-incident report, 18 Nov 2025. Microsoft Ignite: event listings citing Microsoft.

Disclosures. Our founder is also a senior executive at one of the leading global AI infrastructure companies. Compute Terminal is independent of that company. Positions: Compute Terminal Research, its founder and affiliated entities hold no positions in the listed companies named in this note (as at 13 Nov 2026).

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