Cloud under the microscope: Decoding the signals shaping smarter infrastructure p21

Automation with intent: Rewriting the rules of enterprise security p34

The future unfolds in LED displays p40

November's Best PC games you can't miss p66

₹125

VOL. 38 | ISSUE 11 | November 2025

www.pcquest.com

PCQUEST

TECH TODAY & TOMORROW

CyberMedia

The AI vaccine: How preventive care and artificial intelligence can shield India from soaring healthcare costs

Engineering the Self-Optimizing "CLOUD"

Adaptive orchestration, AI control loops, and real-time telemetry at cloud scale

Special Subscription offer on page 64

76 pages including cover

Cloud's next leap
From managed chaos to autonomous intelligence

PCQ Bureau
pcquest@cybermedia.co.in

The cloud isn't just evolving; it's learning. From AI bots to self-healing systems, the future of cloud ops is all about intelligence, autonomy, and a whole new breed of engineers

Let's be honest. The cloud, for all its glory, still feels a bit... needy. Behind every auto-scaling magic trick or seamless app update, there's a bunch of humans pulling levers, fixing bugs, and praying the system doesn't crash during peak traffic. But according to Rajsekhar Datta Roy, Chief Technology Officer at Sonata Software, the days of cloud babysitting are numbered.

We're standing at the edge of something bold: cloud platforms that can think, fix, and optimize themselves. Sounds futuristic? Maybe. But it's already beginning. And what's coming next could change everything from how systems are built to who builds them.

Cloud ops get a brain (and maybe a spine)

The move toward autonomy in cloud operations isn't just about fancy dashboards or better alerts. It's about true intelligence.

Think of it as the cloud growing a nervous system. Advanced observability tools act as its eyes and ears, listening to every click, process, and glitch in real time. Then come the brains: AI-driven bots and process agents capable of learning from that operational data. These digital minds don't just monitor, they detect, predict, and fix issues before a human even notices.

And here's where it gets cooler. These bots don't stop at fixing. They learn. Every fix feeds the system more data. The more it learns, the less help it needs. Eventually, it's a closed loop: see, think, act, improve.

We're not talking about a single platform doing this in isolation either. These intelligent systems stretch across hybrid and multi-cloud setups, building a kind of federated awareness. A cloud hive mind, if you will.

The skills that matter when the cloud gets smart

So where does that leave humans?

Well, cloud isn't just a storage locker anymore. It's fast becoming the bedrock for artificial intelligence, sprawling across hybrid, edge, and public environments. And as AI eats more of the stack, engineers will need to shift from wiring systems to designing intelligence.

By 2026, the most valuable skills will

RAJSEKHAR DATTA ROY,
Chief Technology Officer, Sonata Software

live at the intersection of AI and cloud. This means understanding how to build and manage systems that aren't just reactive but predictive. Systems that self-correct. Systems that talk to each other.

Here's what that skillset looks like:

- Observability and telemetry: not just monitoring, but translating noise into signal.
- Remediation frameworks: tools that automate healing when something breaks.
- Agentic architecture: the design of digital agents and AI bots that act like mini-engineers.
- Vector workloads and multimodal toolsets: where code, models, and language interfaces blend.

The bottom line? Tomorrow's engineers won't just build infrastructure. They'll choreograph intelligent behavior across distributed systems. Think less "DevOps engineer," more "autonomous systems designer."

Meet your new teammate: the AI bot

Let's talk roles.

As more intelligence gets baked into the

cloud, the responsibilities of Site Reliability Engineers (SREs), platform engineers, and DevOps teams are about to get a serious upgrade.

Gone are the days of staring at logs and waiting for alerts. These roles are shifting from tactical doers to strategic overseers. Imagine AI bots that automatically deploy updates, scale services, or handle failovers, all while engineers focus on system design, governance, and big-picture resilience.

Platform engineers, especially, are set to become orchestrators. Not just of tools, but of workflows between humans and machines. They'll manage hybrid teams – some carbon-based, some silicon – all working together through integrated toolchains.

It's not about replacing humans. It's about making room for smarter collaboration, where bots handle the grunt work, and people focus on thinking bigger.

▾ Cloud Optimization 2.0: Not just cheaper, but smarter

Let's retire an old myth: that cloud optimization is just about slashing costs. The next wave of optimization is about intelligence, agility, and sustainability.

By 2026–2027, cloud systems will be able to:

- Adapt to workload changes in real time
- Blend seamlessly across hybrid, edge, and multi-cloud environments
- Allocate resources predictively
- Self-optimize without manual tweaks
- Factor sustainability into every decision

The backbone? Low-latency, secure interconnects. Unified observability. AI-native infrastructure that can self-diagnose and self-heal. Even on-premise systems, often seen as old-school, will be pulled into this intelligent grid, connected through observability pipelines that ensure compliance, governance, and performance are automated, not enforced manually.

In essence, cloud won't just be managed. It'll be alive. A digital organism that evolves, adapts, and runs itself with a little help from its human architects.

▾ From control to choreography

The rise of autonomous cloud systems doesn't mean engineers are out of a job. It means the job is changing fast.

You'll still need people. But not to babysit infrastructure. Instead, they'll design systems that can learn. Teach bots how to respond. Set the rules for self-governance. The shift is from control to choreography.

This is good news for the next-gen cloud talent, the 20-somethings tinkering with AI models and thinking in code, math, and systems all at once. Because the cloud of 2026 isn't a place you plug into. It's a partner you train, evolve, and grow with.

▾ The cloud that thinks, learns, and heals

We're moving beyond automation into an era of intelligence. An era where cloud platforms don't just run workloads, they reason, adapt, and optimize themselves. The building blocks are already in place: AI-native architecture, intelligent agents, federated observability.

What's needed next? Cloud professionals who can design for autonomy, not control. Engineers who think like systems architects for intelligence, not just infrastructure.

So here's the big takeaway: the cloud isn't just getting smarter. It's becoming self-aware. And those who learn how to build with it, not just on it, will shape the future of tech. ■