



## A HELPDESK ON STEROIDS

How Infosys BPM helped a leading semiconductor manufacturer completely rewire its global IT support function for over 180,000 employees, with AI and modernisation

### Abstract

Emily Wang, Director of Digital Employee Experience at a leading global semiconductor enterprise, was working through an IT support system that had become increasingly reactive, with rising ticket volumes, uneven self-service content, and a heavy reliance on phone support. The slow resolution times and project delays were starting to impact employee experience. To turn things around, Emily partnered with Infosys BPM to modernize the entire support ecosystem. This case details how Infosys BPM completely rebuilt the entire support system, leading to a 41% reduction in ticket volumes, a 28% drop in mean-time-to-resolve, and an improvement in first call resolution rates to 86%, thereby enhancing the overall employee experience.



## An overwhelmed support system

Emily Wang is the Director of Digital Employee Experience and IT Service Desk at a leading semiconductor enterprise operating across 27 countries. In this key role, she is primarily responsible to ensure seamless digital experiences and IT support for over 180,000 employees running mission-critical design labs, fabrication plants, and engineering operations worldwide.

On any given day, thousands of engineers and technicians would depend on uninterrupted access to secure networks, design software, and tightly controlled environments. At this scale, IT support had become a lifeline function where even a few minutes of delay could disrupt production cycles worth millions.

Behind the scenes, Emily was managing a support system under increasing pressure.

Ticket volumes were rising beyond 9,700 per month, driven largely by outdated or inconsistently tagged knowledge articles spread across multiple repositories. To make matters more complex, employees often struggled to find clear answers through self-service channels, leading them to rely on phone support instead.

While the firm had a Gen AI-powered chatbot envisioned as the first line of support, its adoption had stalled at just 5%, owing to accuracy and reliability concerns. At the same time, Emily noticed that the firm's authentication workflows such as BitLocker, VPN, and MFA resets were also exposed to routing inconsistencies and potential compliance gaps.

Aware of the consequences and gravity of the matter, Emily knew the current state of operations needed transformation.

Her concerns amplified during the firm's quarterly engineering review, where even the senior leadership began to raise their concerns about resolution delays and the overreliance on phone-based support.

Recognising that the support model was increasingly reactive and susceptible to further delays and inconsistencies, Emily began looking out for a solution to drive operational discipline at global scale. Fortunately, she knew that she didn't have to go looking far out for a solution. The firm already had an established relationship with Infosys BPM, which had an established service provider across business verticals. After a quick discussion with the board of executives, Emily reeled in Infosys BPM as her transformation partner for the project.

## Rewiring from the ground up

Commencing the extended partnership, Emily got in touch with Jaideep Shetty, the Infosys BPM Project Lead, and discussed her requirements in brief. Upon understanding the gist of the project, Jaideep quickly assembled a team of AI operations experts, service desk SMEs, automation specialists, and process consultants to dive into the details. To advise his team, Emily also looped in several of her staff including product owners, service management experts, quality experts, members of the in-house development team, and tenured agents who had first-hand experience with from the front line

Soon after, the team joined several detailed workshops with Emily, where she

outlined the complexities affecting her IT support services—such as misrouted tickets, inconsistent tagging, and gaps in knowledge reliability. After reviewing the current state and future goals, Jaideep and the team recommended a structured, multi-phase plan to refresh and modernize the entire support system.

With Emily's approval, the team began a detailed review of the existing ecosystem, analyzing two years of help desk inquiries and incident records. The assessment revealed areas that had been impacting decision-making for some time. For example, a key service offering was missing from dashboards, affecting visibility and reporting. They also found that a few categories accounted for nearly

60% of incoming volume, and over 900 product pages lacked a unified structure. Even the chatbot, intended as the first line of IT support, was operating on incomplete and inconsistent information.

With this foundation in place, the team began reshaping the self-service layer from the ground up. For starters, they rebuilt the most commonly searched “How do I” enquiry workflows and corrected the outdated SharePoint links. They then introduced a structured taxonomy for the fragmented maze of product pages. The team even worked to improve portal logic and integrate high-impact workflows such as device enrolment, PC refresh, MFA backup methods, and access-related processes to eliminate all dead ends.

## Approach summary



- Conducted forensic assessment of historical ticket volumes
- Reinvented entire self-service experience and workflows
- Trained firm's GenAI chatbot with new data and conversation flows
- Established a specialist team for high-risk authentication flows
- Executed a large-scale global VPN migration for 150,000 users

Alongside this, Jaideep's AI operation experts focused on rekindling the firm's chatbot into a reliable first-line solution. To start off, the team grounded the tool with trusted Microsoft and SharePoint content, while simultaneously feeding it real resolutions sourced from service

desk agents. Then, they built new conversational flows for critical areas such as access requests, BitLocker recovery, VPN issues, and device enrolment. The team also introduced office hours and continuous feedback loops into the chatbot, allowing it to learn and improve

in real time. During this time, Jaideep also worked with Emily to rebuild confidence and awareness among employees with internal Microsoft Viva Engage campaigns, and in-app nudges.

However, the bot's early iterations weren't perfect. The team noticed frequent moments of hallucination and unreliable answers, leading to an understandable resistance from users. But the team was successful in improving the bot's performance overtime through careful split testing, phased releases, and strategic data-backed refinement.

After this, the team turned their attention to governance and compliance strengthening. For this, Jaideep helped Emily establish a ring-fenced, 22-member specialist 'SWAT team' which would be responsible for all high-risk authentication flows. They trained the unit to operate under updated InfoSec SOPs, strict audit disciplines, and a zero-tolerance policy for deviations. The group was made

responsible for swimlane mappings, global time-zone coverage for 24x7 readiness, and enforcing strong quality gates for preventing any impersonation risks.

During this phase, Emily brought to Jaideep's notice that the firm's VPN software, Cisco AnyConnect, was approaching its end-of-life. She requested Jaideep's support for smoothly carrying out a large-scale global VPN migration to GlobalConnect for her workforce.

What followed was a carefully orchestrated transition affecting nearly 150,000 users worldwide. To begin with, Jaideep's team moved quickly to build custom agent scripts, conduct remote installations, and run detailed readiness checks to identify potential failure points in advance. At the

same time, the team standardised support messaging across teams and regions to ensure a consistent experience for every user, regardless of location.

However, the team soon met with a hurdle. The firm's legacy operating systems kept blocking VPN upgrades across networks. But instead of letting this stall progress, Jaideep directed the team to isolate these exceptions and provide real-time support for all login failures and authentication issues as they arose.

Despite the complexity and scale, the team was able to carry out the transition in a controlled and seamless manner — reinforcing Emily's confidence that the right operational and technical backbone was finally in place.

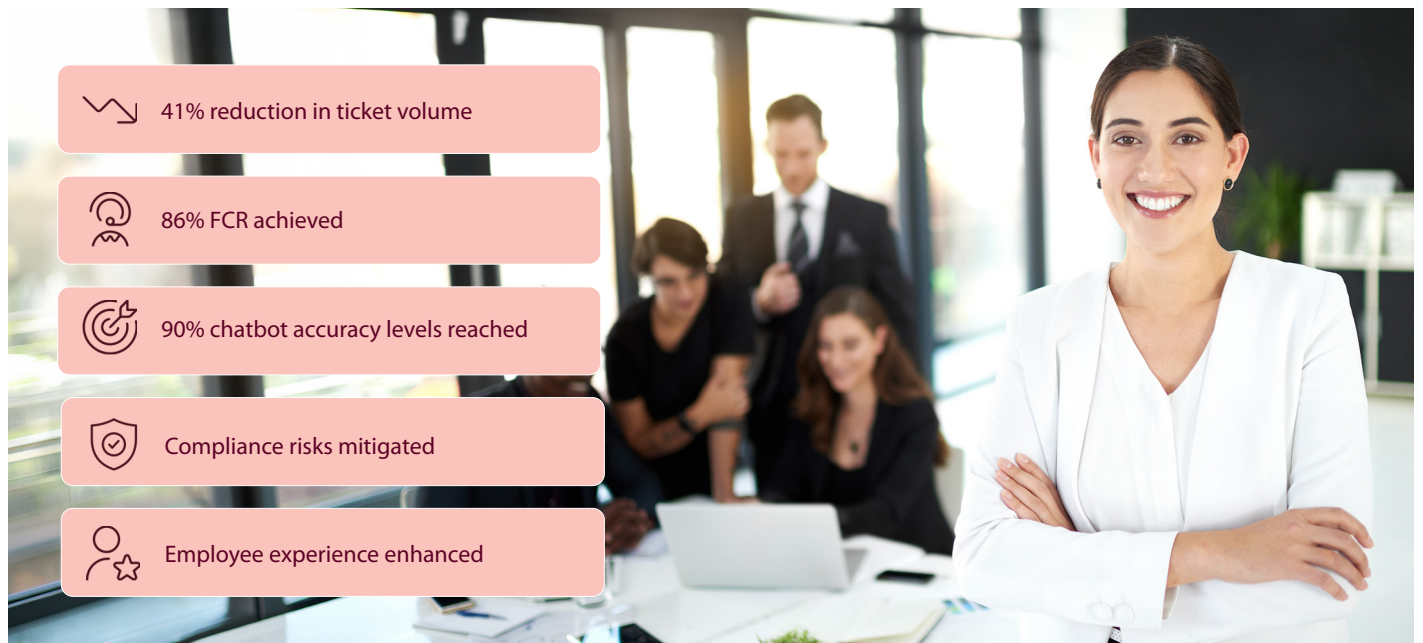
## The benefits of going beyond

The impact of the transformation became visible almost immediately after the new processes and tools went live. What had once felt like an endless stream of reactive firefighting began to turn into a manageable, predictable flow.

The firm's self-service channels grew a lot more reliable, drastically shifting employee behaviour. Employees became more aware of the chatbot — which ultimately crossed a 90% accuracy threshold — and were willing to leverage the channel more frequently rather than calling the IT support.

Consequently, the ticket volumes which had been climbing relentlessly the past few months, dropped by 41%. This translated to 86,434 fewer incidents and thousands of hours saved for the service desk, with all the initiatives implemented with effective governance.

## Key benefits



To Emily's delight, employees were now finding answers without needing to call the service desk, and when tickets did come in, they were clearer, better routed, and easier to resolve. The mean-time-to-resolution for the tickets fell drastically from 6.28 to just 4.48 hours.

Additionally, the first contact resolution (FCR) rate rose from 75% to 86%, dramatically replacing escalations with intuitive support journeys that employees could navigate on their own.

Behind the scenes, the introduction of the SWAT team and stricter governance controls fortified the organisation's security posture. Moreover, the daily huddles, transparent dashboards, and structured reviews brought a new cadence to operations, transforming what was once chaotic into a disciplined rhythm.

For Emily, the success of the program went far beyond these metrics. Her leadership and foresight were recognised on a global stage, as her CIO acknowledged

her efforts during a company-wide town hall, presenting her with the 2025 Digital Transformation Excellence Award. With renewed confidence from leadership, she was subsequently entrusted with expanded responsibility, namely overseeing global self-service initiatives and shaping the organisation's AI adoption strategy moving forward.

*\*Names have been altered to preserve the identities of the people involved.*

For more information, contact [infosysbpm@infosys.com](mailto:infosysbpm@infosys.com)



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