

# Broadcom Embraces New Challenges and New Employees with the Help of AI

 **BROADCOM** → [Case Study](#)

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“This is the first conversational AI platform that focuses on the IT service desk. I don’t have to teach it anything, I don’t have to do any scripting, and I don’t need a team of people to create dialogue flows. That part itself is huge: it’s true plug-and-play machine learning.”

— **Stanley Toh**, Head of End-User Services & Experience, Broadcom



## A Rich History in Progress

Broadcom Inc. is a global infrastructure technology company with a long history of innovation. In 2015, Avago Technologies, an established semiconductor manufacturer dating back to 1961, purchased Broadcom, a fabless semiconductor company, and adopted the latter's name. Over the years, the organization has been aggressive about expansion, most recently with its Fall 2018 acquisition of CA Technologies. Following the CA deal, Broadcom is now a \$20 billion company, with offices and facilities around the globe, including the U.S., Europe, Israel, and India. Broadcom employs approximately 15,000 people worldwide, including many contractors.

## Rapid Growth Requiring Robust Integration

Andy Nallappan, Vice President and CIO at Broadcom, has seen his company undergo incredible growth and transformation over the years. The acquisitions Broadcom/Avago has made over the last decade present integration challenges with each new organization the company brings on.

"When we buy companies, they come with rich history, a rich culture, a lot of data, and many legacy applications," Nallappan said. "To achieve optimal efficiency, we need to integrate new employees and systems into our existing environment quickly."

The CA acquisition took this challenge to another level, with Broadcom diversifying to become an infrastructure software company. An expeditious integration while scaling remained the central focus; automation was seen as a way to guarantee this target. "That's where Moveworks came into play," Nallappan said. "We needed a technology to assist us in better integrating our new worldwide workforce so that they could be productive on Day 1."

## An Ambitious Goal Ahead of its Time

As Broadcom scaled in size, so did the volume of IT issues. These were typically addressed by outsourced service partners. Staff turnover in this agency posed challenges that led to an inconsistent and at times frustrating employee experience. Something had to change. The impetus to apply AI and machine learning stemmed from an initial goal to tackle the problem at its source.

"We had a mission: a zero helpdesk," Nallappan said. "But when we first laid out the mission the technology was just not available to achieve it. Our focus was not just volume, and not just to scale automation, but to improve the experience of our employees and stop the complaints."

## Broadcom, Inc.



58yrs

Founded in 1961



\$20B

Annual Revenue



15k

Employees

However, the available solutions on the market fell short of Broadcom's requirements. Stanley Toh, Broadcom's Head of End-User Services and Experience, said the company looked at offerings from leading vendors and service providers—none offered what Broadcom was looking for.

"They had so-called AI, but you needed to do a lot of scripting to teach the bot," Toh said. "Many of them needed their own chat platform. And they were expensive; the ROI was just not cost-effective."

The solution Broadcom was seeking needed advanced machine learning and conversational-AI, an easy-to-use interface, versatility to integrate with the company's use of Google Hangouts Chat, and no time-consuming scripting—all without breaking the bank or monopolizing IT's time. The Broadcom team found that and more with Moveworks.

## An Immediate Impression

Toh saw something special in the Moveworks platform right away. "After 30 minutes of the first demo, I asked to stop and said, 'Let me go get Andy.' I was fortunate that he had 15 minutes to spare.

To aid with the decision making process, Moveworks carried out a detailed analysis of Broadcom's historical IT service desk ticket data using natural language processing and machine learning. These data insights enabled the team to clearly understand the benefit and impact that AI could have on their existing processes and solidified the team's conviction to get started.



"You don't have to have a huge team to implement it or worry about a long learning curve. It's all implemented by Moveworks, and it's done quickly and easily."

—Andy Nallappan, CIO, Broadcom



**Contact Us**

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## Seamless Implementation

Broadcom's early foresight around the advances of AI led to many fundamental elements already being put in place. One of which was a comprehensive library of more than 3,000 knowledge base articles. That and a good history of support tickets gave the Moveworks platform the data necessary for the machine learning models to perform optimally in the Broadcom environment.

In a matter of weeks Broadcom went from signing contracts to rolling out the Moveworks platform to all of its employees. "We didn't even have that many of our own people on the project," Toh said. "Time and resources spent were quite minimal. We actually spent more time marketing 1.Bot [Broadcom's internal name for the solution] to employees than working on it."

Employees were instantly able to use Google Hangouts Chat to resolve a variety of issues like resetting passwords, unlocking accounts, creating tickets, checking ticket status, and finding answers from knowledge base articles. All of these were previously handled by an outsourced helpdesk.

But a bigger test awaited 1.Bot: integrating thousands of CA employees into the company.

## Delivering on Day 1

When onboarding a new company, the first day that the employees are fully integrated into Broadcom is called, "Day 1." Erica Callaghan, Broadcom's IT Manager for Global Deskside Support Services and Service Desk Teams, has experienced five such days.

The first day of integrating CA employees allowed 1.Bot to truly shine. These new coworkers had many questions, requests,

and concerns that the platform was able to swiftly resolve or answer. "From an IT perspective, Day 1 brings a whole new tool set to the acquired company: new email addresses, conferencing solutions, chat solutions, IT solutions, logins, passwords, and so on," Callaghan said. "1.Bot was able to complete tasks for these new employees, like adding them to email groups, it could answer many questions people threw at it, or at a minimum it would log a ticket without the employee having to search for a number to call. And being available through a conversational interface in Google Hangouts Chat made it all that much easier. The CA employees loved that the tool made their transition to their new organization easier. The week of integration, 1.Bot usage spiked across the company and approximately 30 percent of issues fielded by 1.Bot were autonomously resolved. This provided another huge benefit to the IT team at Broadcom by eliminating the usual need to add personnel or other resources to handle the new influx of employees.

## More Innovation for More Functionality

Moveworks was resolving 10% of Broadcom's IT issues immediately after launch. That increased to 15% within weeks, with peaks of 30% during the CA integration. Toh expects to hit a 30 percent resolution rate, in line with other Moveworks customers, within six months. He has a long-term goal of a 70-80 percent resolution rate as Moveworks continues to evolve the platform.

Not long after launch, they rolled out the ability for their customer's bots to reset multi-factor authentication (MFA) for single sign-on (SSO) solutions. We immediately enabled this for 1.Bot and now we don't have to have service desk agents working on these requests."

"In my opinion, it was one of the most successful Day 1s we've ever had. 1.Bot has become our employee's new habit."

—**Erica Callaghan**, IT Manager of Global Deskside Support Service and Service Desk Teams

Moveworks continues to partner closely with Broadcom on several new use cases that are being developed:

- 01 Onboarding: Will give the ability for new employees and hiring managers to use 1.Bot for all aspects of the onboarding process
- 02 Enterprise Resource Planning (ERP) integration: A rich integration with ERP systems will enable employees to use the bot to place orders, give approvals, and check on order status
- 03 Outage status: This will enable the bot to give contextual updates on system status to employees, as well as divert tickets during outages and send alerts to affected users as needed.

"If we had bought an alternative solution and had a vision of incorporating a skill, our own internal teams would have to script the skill and maintain it," Toh said. Everything Broadcom Was Looking For

A few years ago, Broadcom set out a vision to improve the helpdesk experience for its employees, save time, and reduce the volume of work by automating tasks with AI. "This was our dream," said Toh. "But with Moveworks it's not a dream anymore, it's reality. We still have more to accomplish but we are finally on the journey, and that's exciting."

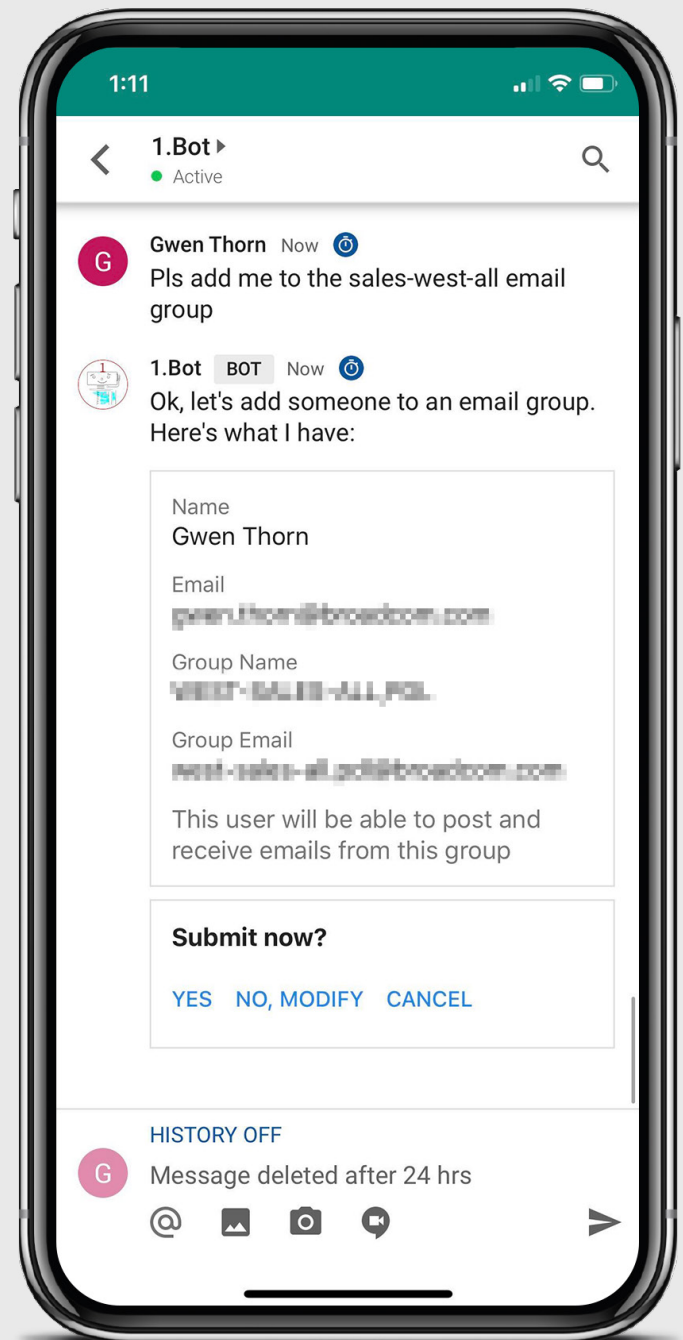
For Andy Nallappan, it's the combination of focus and intelligence that differentiates Moveworks. "The Moveworks solution is focused on machine learning for helpdesk data," Nallappan said. "It is much more than a platform. A lot of people have a platform, but Moveworks also has the content. It learns across corporations so it's constantly getting smarter — and we get to benefit from that. You don't have to have a huge team to implement it or worry about a long learning curve. It's all implemented by Moveworks, and it's done quickly and easily."

Nallappan's overall impression of Moveworks is simple and powerful:

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"It's AI that really works."

## Product Highlight



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"We've seen how fast the Moveworks platform evolves first-hand."

— **Stanley Toh**, Head of End-User Services and Experience, Broadcom