

# Bots, The Changing Face of Enterprise Applications

**An Executive Overview**

# Seven Things Every CIO Should Know About These New Intelligent Assistants

Enterprise applications – from simple communication tools to complex information management systems– create the foundation of a business. Companies rely on the data that resides in these robust systems of record like Sales force, SAP ERP and industry-specific applications like Electronic Medical Records or Core Banking Systems. Employees require a variety of tools like email, IM and online meeting software to communicate with distributed teams, partners and vendors.

Unfortunately, the number of applications each employee needs to get their jobs done has skyrocketed out of control. Research from Sky High Networks <sup>1</sup> showed that an average employee actively uses 30 applications for work, including eight collaboration services, five file sharing services, and four content sharing services. This is simply too many applications for any one person to handle. Shifting from app to app creates a chaotic, stop and- start work environment that seriously hinders productivity.

It's no secret that many employees believe enterprise tools deter them from getting work done. There are too many communication and collaboration options – and none feel quite as simple as what's available in our personal lives. Robust business applications can be complex, tedious and time-consuming to use. People waste endless cycles weeding through these systems of record to get one task done.

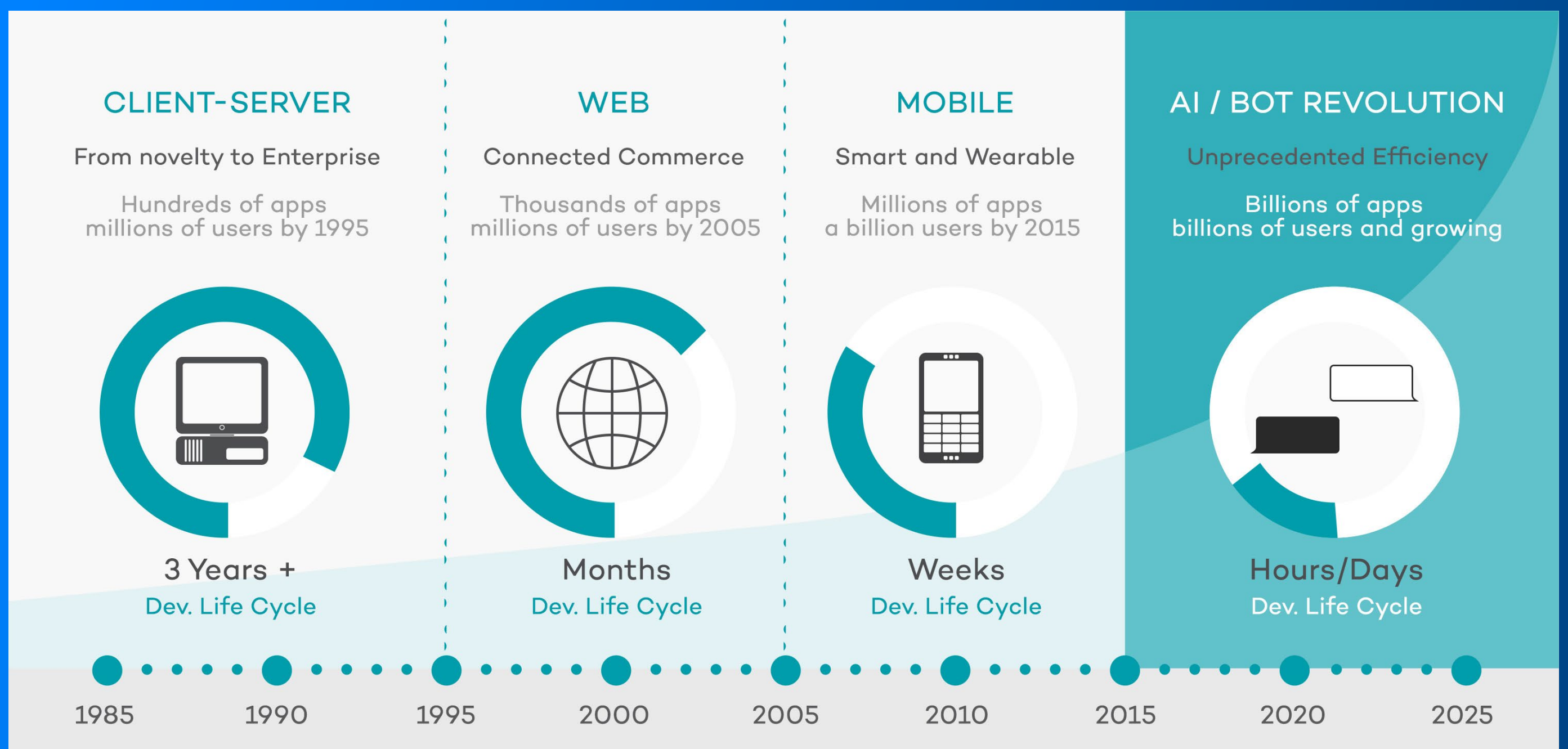
That's why software companies and enterprise application architects spent much of the past two decades attempting to simplify the application paradigm

# The Evolution of Enterprise Applications

Two decades ago, enterprise applications were monolithic client-server applications written in a single language, running in an on-premises data center, accessed only through desktop computers inside the network firewall. By 2000, application developers started to build web-based applications.

Today, many applications run partially or entirely in the cloud, interoperate with other services through APIs, and allow for anywhere, any device access. Big monolithic applications have transitioned to microservices architectures, enabling each feature of an application to be optimized independently. Old features can be upgraded and new features introduced without a multi-month, high-stakes, all-or-nothing test and release cycle. Vendors also continue to work tirelessly to improve application UI design. Many developed mobile apps to accompany their larger software suites, providing better experiences and quick execution of specific tasks – from a mobile device. The evolution of the past five to ten years significantly improved application time-to-market, eliminated device and location dependency, simplified workflows and enhanced user experiences.

*Yet, a brighter future still lies ahead. Today, enterprise applications remain a tight coupling of the application's user interface (UI) and the information or content stored within that application. The average user thinks of an application like Salesforce as what they see when they log-in, or the UI.*

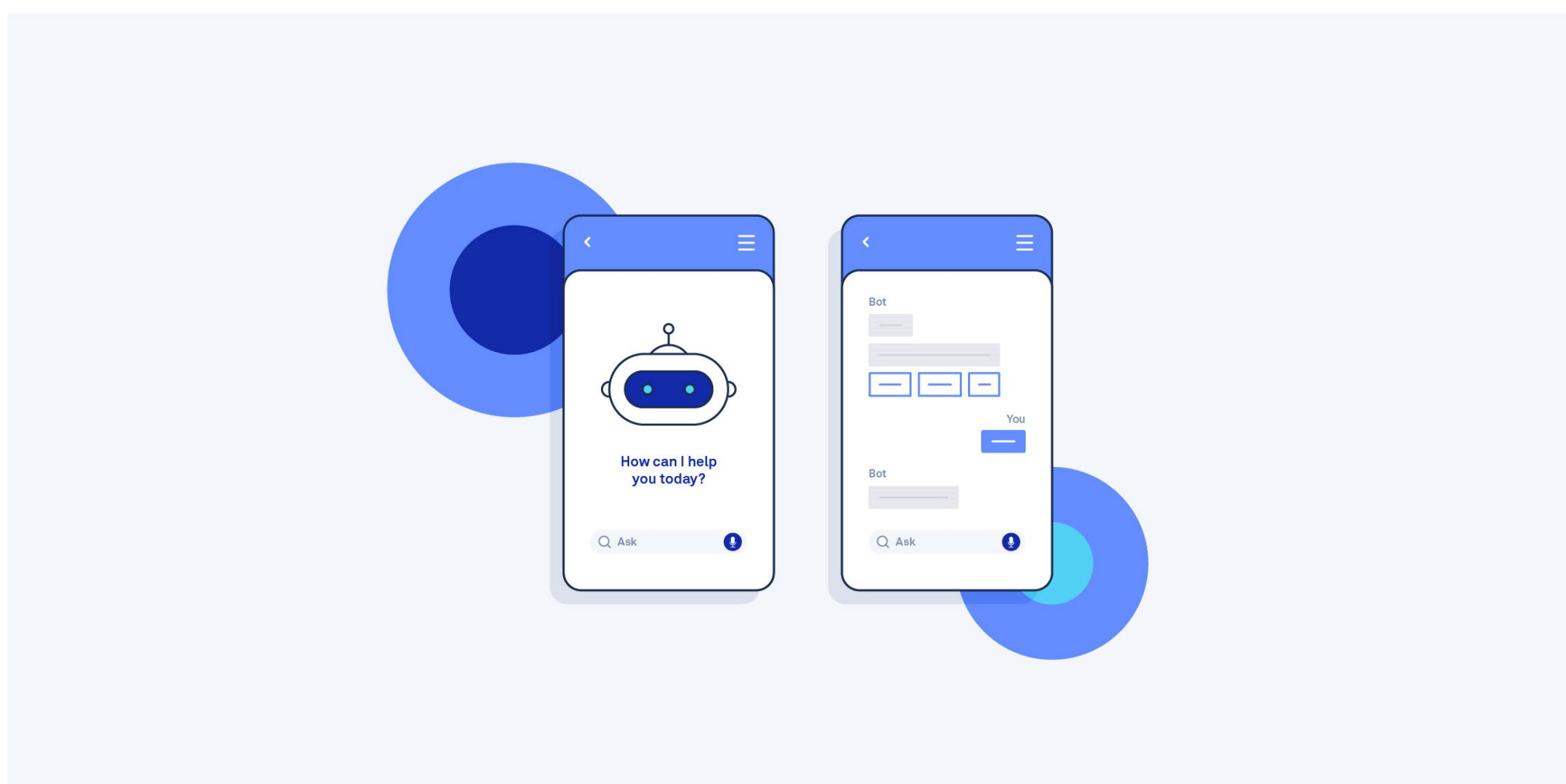


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- Not all bots are created equal. Here are seven skills you should look for in bots when preparing to transform your employee's application and communication experience:
  1. Two-way conversations. Most bots available today only do one thing – provide alerts or information to people. These simple bots use webhooks to trigger inbound alerts such as sending a weather update or providing a notification about a task being completed. One-way alerts from business applications are valuable and timely. But alone, alerts won't accelerate productivity or response time if the user can't easily take action. Bots must have two-way conversations with users. They should provide alerts, generate information or reports on-demand, and execute actions on a user's behalf. People should be able to direct their bots to perform routine tasks like creating an event in Google Calendar, updating a JIRA ticket or changing an opportunity close-date in Salesforce – all from the same place. With two-way communications and interconnected workflows, incoming alerts become actionable, enabling users to quickly respond to business events without wasting time authenticating or finding key information across a variety of applications.
  2. Communication with individuals and teams. The last thing people or teams need is yet another irrelevant alert to flood their phone, inbox or computer. They already receive too many useless group emails and random notifications. People need bots to deliver the right information at the right time. They need a bot to send triggers that help them take action on the stuff that matters most. Alerts, information and actions must be customizable for individuals and teams or groups

*For example, a sales rep might set up a host of alerts from their Salesforce bot. They want to be notified every time a lead is created in their territory by Marketing, or a new activity is started by Business Development within their key accounts. But this would be way too much for their manager and area VP. So instead, that same rep could set up an alert to go to management when their opportunity crosses a certain stage or threshold, keeping their boss in the “know” when they need to know, without becoming a nuisance.*

3. Human-like dialogues: To truly simplify application user experiences, bots must enable people to converse with the business applications they rely on to do their jobs, just like they can “chat” or message a person or team. Innovative retailers have started to test the concept of conversational commerce.

Consumers engage with a retailer’s chat bots in a message-based dialogue that drives them from an initial search through to purchase. Similarly, enterprise application bots will give rise to the concept of the “conversational work day.” Enterprise bots should communicate with people and teams through today’s preferred medium – texting or messaging. People should be able to talk to their bot more like a human, leveraging common commands and social signs such as an @ mention, a “like” or a “poke” to shape the bots future behavior. Bots also must quickly evolve to use natural language processing. This will allow busy road-warriors and other on-the-go employees to stay productive when out in the field, in the car or walking down a hospital or office corridor.

4. Contextual, intelligent interactions: Today’s bots already store and use contextual information such as preferences, dates and time, location-based services and geo-fencing to determine when to allow alerts and actions to occur. However, the highest value bots also will begin to leverage greater machine learning and artificial intelligence capabilities. This will enable bots to presuppose actions or alerts based on a user’s past context. Here’s an example of what that could mean to a sales rep.

*Imagine if a bot knew from having a rep’s calendar access that he had planned an upcoming visit to a key account. Prior to the meeting, the bot automatically predetermined that it should gather some background data on the account to prepare the rep for the visit - without the rep asking for it. The bot might collect the customer’s past orders and product implementation status notes from SAP ERP, their help desk tickets from Zendesk, and key contact information or activities from Salesforce. The rep is quite pleased and “likes” the information sent, helping the bot know that it should perform similar actions in the future. After the in-person meeting occurs, the bot decides that the rep might want to both up-date the opportunity status in Salesforce and book a Marriott hotel via Concur. Before the rep has a chance to walk out of the customer’s building, the bot is working on his behalf to eliminate tedious tasks that limit customer face time and new prospecting activity*

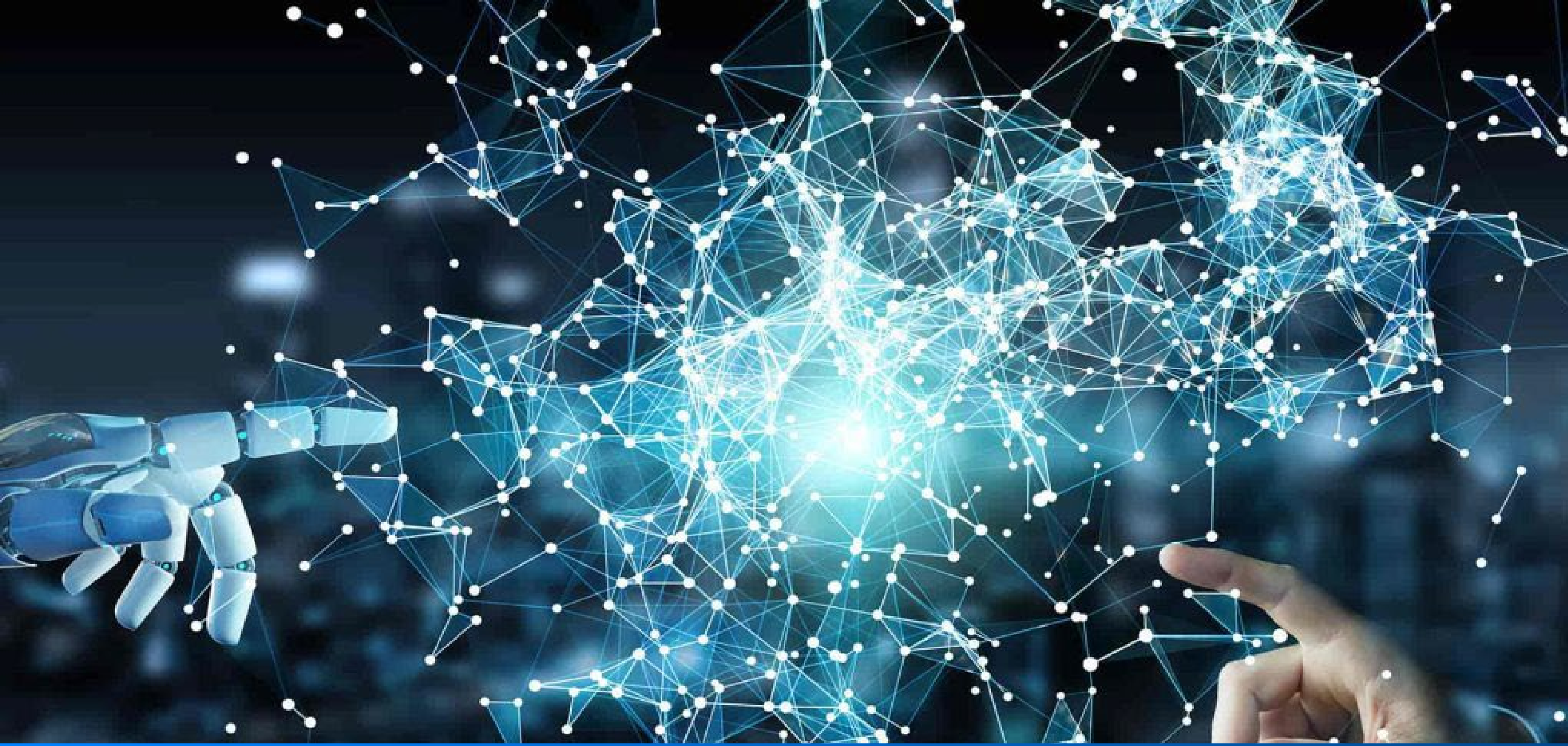
5. Omni-presence. To ensure information can be received and acted upon, bots must be omnipresent. They must exist across channels and devices. They should be able to live wherever a business decides to put them. Place a bot within a mobile app, on an enterprise Intranet for all employees to see, within a team social collaboration tool and more. Determine if your bots can be more than just a new UI for your enterprise applications. The most robust bots can also be the face of your customer interactions or website. They can transform the experience a consumer or business has when they interact with your company.

6. Searchable, living records. Bots must carry the history of a conversation with them across channels, enabling users to start a conversation in one place and continue it in another. They should carry a living record of the conversation history with them, allowing a person or an organization to search through past dialogues just like they would look through emails or other communication interactions between humans.

7. A complete list of skills. For bots to transform the enterprise application challenge, they must be easy to build for your own company's specific application portfolio. It must be fast to develop bots with all of the capabilities listed above, and to add any task to a bots list of skills. It should be easy for your IT team and other people in operational roles like Sales Ops, Marketing Ops or HRIS to add new tasks or new bots for the applications they run. Imagine hiring a personal assistant who informed you once onboard that they couldn't help book your next business trip. Don't make that mistake with bots. Bots offer endless possibilities for your enterprise if you can create them.

# Get Prepared: What to Do Next

How should your IT organization prepare for the future state of enterprise applications? Stop replacing large applications with hundreds of micro, cloud-based services from different vendors, or developing hundreds of new mobile apps. Adding new cloud-based applications still increases cost, application management cycles, data security threats and vendor management challenges. Developing mobile apps only simplifies a user's experience with one app. Mobile apps also can't reduce the application overload issue for employees. More applications – whether cloud or mobile – ultimately create more difficulty with employee onboarding, support and daily productivity. Think differently and don't reinvent the wheel. Investigate how to use bots to simplify the way people use all of your business's enterprise applications.



**Thank You**