

The Customer Support Technology Stack

Automation Is Critical to Boosting Productivity and Lowering Costs

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*A Joint Research Paper from
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EXECUTIVE SUMMARY

Technology is incredibly important to customer support organizations. Various platforms and applications are required to understand customer history, account entitlement, and service level agreements (SLAs); to interact with customers via multiple channels; and to enable unassisted support. TSIA has identified 5 separate application categories recommended for highly productive, scalable support teams, including core infrastructure technology, productivity tools, and tools to understand and track customer behavior and sentiment. In this report, TSIA Research defines the recommended technology stack for customer support, Support executives should understand which enabling technology components are already well adopted, as well as emerging tools that may provide a boost to operational and financial metrics.

EXTREME AUTOMATION FOR CUSTOMER SUPPORT

Support organizations continue to be asked to reduce cost, increase customer satisfaction, and grow corporate revenue streams. More than ever, the focus on self-service is top of mind for TSIA members, and a recent TSIA research report documented that 65% of end users say that self-service is a preferred channel for support.¹ The results of the TSIA Support Services Benchmark study show that 52% of the industry now measures success with self-service, and 37% measure self-service deflection. These numbers are at an all-time high, and we expect them to continue to grow, as the focus on self-service means not only implementing but also being able to measure the effectiveness of the solution.

In order to take the next step in boosting productivity and satisfaction, technology can be a great enabler. Not only can basic processes like employee scheduling and quality monitoring be automated, but also analytics can give you new insight into your business, including real-time performance dashboards and interaction volume forecasting tools. This report will define some of the technology components that TSIA recommends companies evaluate. Some are standard infrastructure products practically everyone has, others are newer, more innovative solutions that may help provide you with a competitive edge.

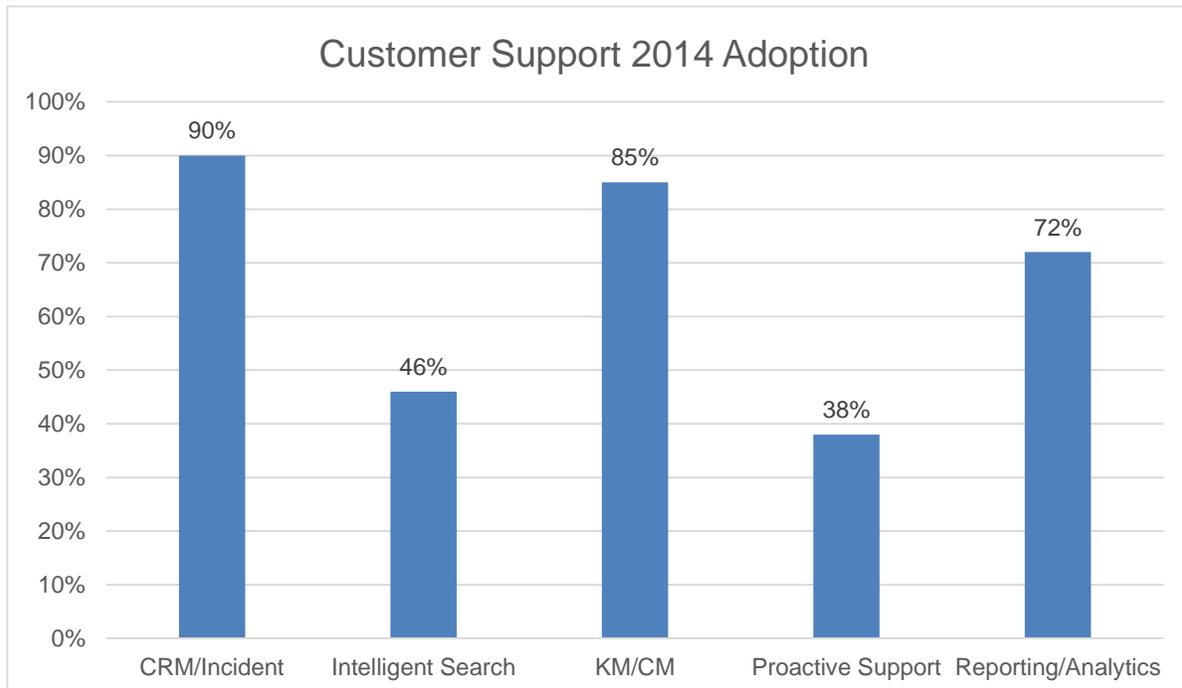
TECHNOLOGY CATEGORIES RELEVANT TO CUSTOMER SUPPORT

TSIA tracks adoption, satisfaction, and planned spending for technology specific to service operations. In the 2014 Global Technology Survey, the following technology categories were identified as relevant to customer support. These technologies are most relevant for emerging trend of Internet of Things (IoT) where product manufacturers are increasingly connecting their machines and assets installed at their customer sites, collecting machine logs as streams or files, and planning to use advanced search and analytics tools to become more proactive, predictive and prescriptive in their customer support operations.

- **Enterprise CRM/Incident Management.** Enterprise CRM is an enterprise deployment of CRM (customer relationship management) across sales, marketing, and service. This platform tracks leads, opportunities, campaigns, accounts, and contact history. Incident management is used to track an occurrence of a customer question or problem through to resolution; also known as case management, service requests (SRs), or trouble tickets.
- **Intelligent/Enterprise Search.** Linguistic-based search platform, including analytics for sophisticated reporting; allows content in any format or location to be indexed and searched.
- **Knowledge/Content Management.** Knowledge management or content management technology is used to capture, maintain, and reuse knowledge.
- **Proactive Support/Intelligent Diagnostics.** Proactive support and intelligent diagnostics is an emerging category of tools used to remotely monitor customer equipment for error conditions; may include auto-resolution or notification features.
- **Reporting/Analytic Platforms.** Reporting/analytic platforms are analytic-based reporting platforms used to do sophisticated trend reports and create reporting portals such as a services dashboard.

In *Figure 1*, the percent of customer support members using each component of the customer support technology stack is shown.

Figure 1: Customer Support Technology Adoption



Source: 2014 Member Technology Survey.

While some technology categories, such as CRM and knowledge management, show very high levels of adoption by TSIA members, other categories remain untried by many companies and represent a great opportunity for boosting self-service success and agent productivity through analytics on machine log data collected through connected machines and assets. In particular:

- **Proactive Support:** TSIA members have accrued numerous benefits by both consuming proactive support capabilities and by offering value-added support services to their end-customers. Examples include automated ticket creation when patterns found in incoming data are compared against pre-defined rules in the system. Members have also worked with vendors to create differentiated service offerings through KPI dashboards and valuable trending reports to end-customers.
- **Intelligent Search.** A poll of TSIA members found that support techs routinely access 12 or more applications or content repositories in order to resolve customer problems. Intelligent search platforms can index all of your corporate content and provide filtering options to help pinpoint the single piece of information you need, regardless of where it is stored or in what format.

“Our team is dedicated to delivering a superior customer experience and Glassbeam supports us in this effort by enabling access to key information for proactive support and by being “spot on” in its assessments for root cause analysis.”

– Joe Limprecht,
Customer Support
Manager at Meru
Networks

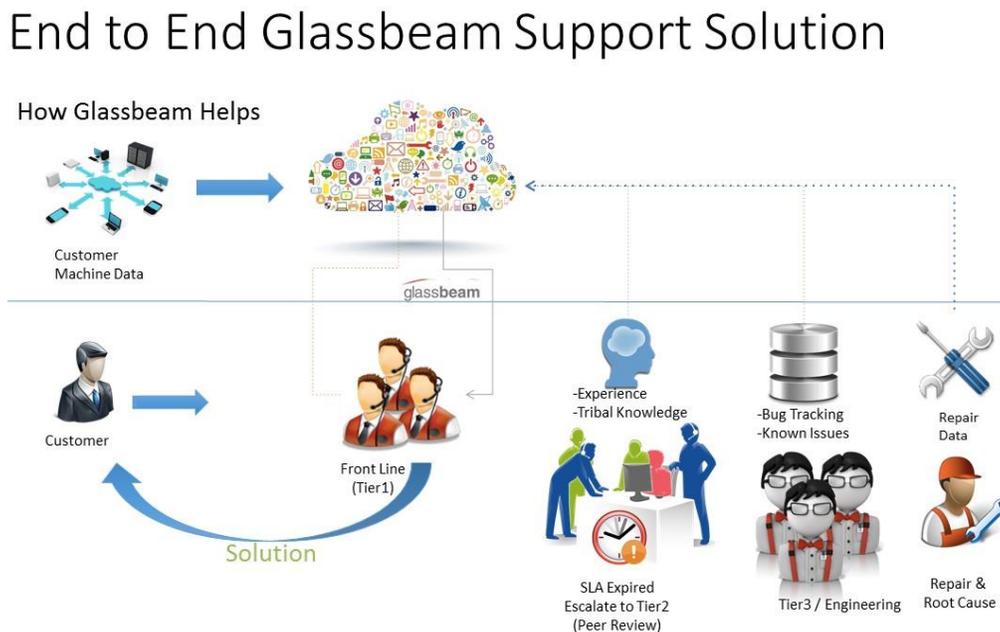
GLASSBEAM SUPPORT SOLUTIONS

Glassbeam is a leading cloud based support analytics solution for Internet of Things (IoT) market. It helps product manufacturers transform their support operations by helping reduce costs and by creating new value-added services to create new sources of revenue.

Glassbeam helps product manufacturers create “Intelligent clouds” – a centralized knowledgebase of information that includes ‘tribal’ knowledge from upper support tiers and engineering groups, known issues from bug tracking databases, and other information that is typically hidden in the minds of people within the organization. This centralized knowledgebase greatly helps in the training and ramping up of newly-hired support representatives by immediately pin pointing possible faults found in the uploaded log file as well as providing actionable next steps based on the systems findings.

When machine data sent from devices in the field is run against this knowledgebase, it automatically helps a level one support engineer find the steps required to remediate the problem. This feature along with Glassbeam’s powerful dashboards and search capability greatly help in determining the root cause of a support issue and in reducing the Mean Time to Resolution (MTTR). In many cases this information can be communicated directly to the user as troubleshooting steps to perform prescriptive maintenance on the machine.

Figure 2: End to End Glassbeam Support Solution



Source: Glassbeam.

Additionally, Glassbeam provides Proactive Support capabilities to customers by enabling the automatic creation of tickets based on patterns of incoming data. These automatic tickets can be created in the Salesforce.com Service Portal or any ticketing system of choice. Further, Glassbeam enables product manufacturers to offer 'Health Check' services to end-customers by creating trending reports that measure and monitor capacity, performance and other parameters that are vital to optimal system performance. Rules can be set up in Glassbeam for anomaly detection in a way that sends an alert whenever a threshold is crossed and a customer can work quickly to address an impending product issue before it actually occurs.

The Glassbeam platform also provides an end to end view of the customers install base. Using 'knob analysis' capabilities, a user can segment this data by different parameters – industry, geography, product version number etc. Support teams can get visibility into the extent of problem exposure for known bugs – this information can be tremendously useful for making decisions on upgrades, patches or even recalls that would need to be delivered to customers.

For more information, please visit www.glassbeam.com or email us at info@glassbeam.com

TSIA RECOMMENDS

With the increased complexity of today's products and the ever-growing number of customer interactions, clearly, investments in service and support technology are a primary avenue to meet and exceed customer expectations for service levels. But knowing where to start is difficult, with many different products offering a similar ROI story. When deciding where to make incremental investments, TSIA Research recommends:

- **Benchmark your technology footprint against other members.** How does your company compare to the adoption numbers shown in *Figure 1*? If you are missing technology that more than half of companies are currently using, maybe it is time to revisit how that technology can assist you in meeting your quality, optimization, and revenue-generation goals. Also, be sure to evaluate what best-of-breed technology offers today compared to homegrown systems, particularly for knowledgebase and self-service technology.
- **Beware the law of diminishing returns.** Service organizations with high performing employees and strong, streamlined processes are unlikely to see the same ROI for a technology purchase as a poorer performing company looking to standardize. Be realistic in expectation setting, and talk to the success organization of the vendor about typical outcomes. When trying to identify where to start with a series of projects, benchmarking is a good first step: identify the key metrics you would like to improve, and then target technology with a successful track record of impacting those metrics.
- **When in doubt, ask.** TSIA Research is here to help. Members can submit an inquiry on any topic and we will do our best to answer within 48 hours. To submit an inquiry, send an email to your membership development director, or send an email to support@tsia.com and one of our service representatives will respond to your inquiry as quickly as possible.

¹ Respondents to TSIA's Social Support Survey indicated that of all assisted and unassisted channels, self-service was the top preferred channel. For more information see "[The State of Unassisted Support: 2014](#)," by John Ragsdale, June 28, 2014.