

EMC PERSPECTIVE



Improving Support Operations and the Customer Experience through Business Intelligence



Business intelligence (BI) solutions offer customer support organizations an effective way of documenting, analyzing, and reporting on issues and resolutions to management and customers. But by using metrics solely as a look-back tool on past performance, organizations are missing out on a much greater benefit—the ability to transform data into actionable intelligence. This ability informs decisions at all levels of the organization moving forward, to more directly and reliably improve the customer experience.

Based on lessons learned from a transformational “management-by-metrics” initiative at EMC, this paper illustrates how such a data-driven approach to customer support can help organizations unify and improve service quality across growing and diverse product portfolios and geographies, integrate acquisitions, shape product development, streamline field operations, and provide customers with a more satisfying support experience.

The promise of business intelligence for customer support

Despite decades of investment in data collection and analysis tools, many customer support organizations still struggle with siloed metrics and support processes. Rapid business change—including new products and mergers and acquisitions of companies with entirely separate customer support organizations—makes integration a moving target.

Yet, as long as different businesses within an organization use their own data and metrics—their own view of the truth—conflicting perspectives, opinions, and interpretations can make it difficult to obtain an objective understanding of what is happening in the organization. Gaps, overlaps, and different data sets and metrics make it difficult for executives and service professionals to access and share critical information and coordinate services across the business. As a result, both the business and its customers suffer from a fragmented support experience.

Business intelligence can deliver a comprehensive, unified view of customer interactions and insight into operational performance across the entire support organization. Standardizing on a single set of master reference data and one set of key performance indicators (KPIs)—with consistent service-level objectives (SLOs) across all businesses, products, and geographies—is critical to success. A single set of data, with the right level of granularity, provides people throughout the organization with the ability to perform objective, fact-based assessments based on a single, common view of performance against metrics and to see exactly what needs to be worked on to ensure that customer expectations are met.

Business intelligence offers customer support organizations:

- A simplified experience for support staff and the customer
- A single, unified view of all support interactions with a customer across all products and global touch points
- Access to the same information across the organization, including the lifecycle of a service request and a single view of all customer support activities

Business intelligence in action: a case study

Business intelligence is core to the delivery and management of customer support services at EMC. The customer support organization depends on business intelligence, both to support the fundamentals of day-to-day operations, as well as to objectively monitor customer experience and the support group’s performance against customer expectations. A web-based dashboard monitors customer interactions, tracks service request lifecycles, and provides the entire customer support organization with day-to-day, tactical management metrics, along with data roll-up into monthly KPIs, fast drill-down, and cross-functional analyses.

Once a month, the management team reviews the previous month’s dashboard by product line, region, business, and other dimensions and turns data into actions to improve operational performance and the customer experience. Because stakeholders have agreed upon “one version of the truth,” it is easy to make fact-based assessments. The data shows exactly where work is needed. Combining these metrics with direct customer feedback collected through the company’s “Voice of the Customer” program keeps the metrics aligned with the customer’s perspective and provides a holistic view of the customer’s total experience.

An algorithm-based, early warning system, developed by the company’s escalation management teams, automatically tracks factors and patterns of events to generate a risk index (by customer) that alerts the support teams to the likelihood of problems before the customer is even aware of it. If a customer index moves into the yellow zone, signaling the potential for escalation, the team uses the information collected by the system to develop an action plan to proactively prevent the issue from escalating. Currently used for approximately 8,000 of EMC’s largest customers who depend on hundreds of EMC® products in their complex global infrastructures, the system has proved invaluable in preventing intractable problems.

Since introducing a data-driven, management-by-metrics approach, EMC's customer support organization has been able to:

- Standardize on a consistent and simple service portfolio across all products
- Unify the customer experience across EMC products, businesses, and geographies
- Speed integration of support systems and personnel from new acquisitions
- Support a rapidly growing installed base without increasing cost
- Build a closer, more collaborative relationship with customers
- Improve online support services and drive increased usage

The organization has also seen a significant change in the nature of conversations among internal support stakeholders—service, sales, product engineering, and management—and between stakeholders and customers. The ability to run customer-specific KPIs based on very granular data enables the support organization to have more fact-based conversations with their customers—for example, to show them exactly how they are performing across all SLOs, from time-to-relief to backlogs, to how many field change orders have been installed. The data helps put incidents in perspective and provides a basis for collaboration to help reduce service needs, as well as to improve service delivery. It also helps corroborate or dispel perceptions. When stakeholder perceptions do not align with data, the support organization can work with stakeholders to determine if there is something missing from the data, and if so, improve the metrics.

Key success factors

As previously discussed, for best results, a data-driven approach to customer service should be based on a single version of data and metrics. This requires consensus from all internal stakeholders, focusing not on who has the “right” data and metrics, but rather on what constitutes the right things to measure and which performance indicators are key.

Metrics should be considered from the customer's point of view. To ensure that KPIs reflect customer priorities, personnel at all levels of the customer's organization should be interviewed, and metrics should be compared with the data collected. For example, what matters more to the customer—how quickly a call is routed to an engineer or how quickly an engineer responds to it?

Finally, data must have the right level of granularity. Is the information broken down into the right levels of macro- and micro-data for effective drill-down and rollup? Can data be rolled up by customer, by product, and across geographies? Can it be presented as actionable intelligence to a service engineer?

Business intelligence experts can help:

- Apply master data management processes and tools to cleanse, rationalize, and integrate data into a single set of reference data across all products, businesses, and geographies
- Architect business analytics to enable different views of information, support ad hoc queries, and track trends
- Implement web-based presentation and tools to provide “anywhere, anytime” access to live dashboards for very quick response and analysis
- Develop repeatable on-boarding tools and processes to accelerate the integration of new products and business acquisitions, including a data-mart reference architecture for integrating new data sources into the master database and a methodology for resolving issues

Management-by-metrics: a work in progress

While customer support organizations can begin reaping benefits of clarity and insight from a management-by-metrics approach almost immediately, there is opportunity for continuous refinement and expansion of data and metrics that will provide increased accuracy and insight to drive ongoing improvements in customer support operations and the customer experience. For example:

- **Enhancing solutions-based support**—by expanding metrics to capture and track the quality of collaboration in support of customers who use a company's products in combination and/or with those of solution partners, organizations can develop tools for collaboration, as well as track the quality of collaboration for such things as time to resolve, number of iterations, and customer satisfaction. Additionally, collecting data on the type of support required by different solutions can fuel improvements in cooperative support agreements and in the creation of joint support centers with solution partners.

Metrics have contributed to the development of task-based navigation, support forums, chat sessions, and other interactive online tools at EMC, resulting in a 100-percent increase in use of the company's customer support portal and a measurable increase in customer satisfaction with the site.

- **Eliminating the need for service calls**—tracking the effectiveness of e-support tools can lead to improvements in information and ease-of-use that can help customers avoid logging a service request at all. Meaningful metrics can help guide and motivate product support and engineering operations to provide the up-to-date and easy-to-access content customers need.
- **Empowering customers**—increasing transparency by sharing customer-specific service dashboards and early warning indices directly with customers is a next logical step. Enabling customers to log into a service portal to see a realtime version of their dashboards and escalation profiles, for example, provides them with valuable data about where they are experiencing problems and empowers them to take an active role in proactively addressing issues.

Conclusion

Business intelligence is a powerful tool for improving the quality, effectiveness, and efficiency of customer service. Capturing the right data and delivering timely, accurate, and actionable intelligence helps people at all levels of the organization make better decisions about how to improve customers' support experience, build loyalty, and increase customer retention. For maximum insight, efficiency, and flexibility over time, customer support organizations should apply master data-management processes and tools to consistently define and manage a single set of reference data and establish a single set of KPIs for management by metrics.

Organizations must realize that management by metrics is an iterative process. Rather than aiming for perfection, teams should begin with reasonable hypotheses about what KPIs are and start using them as a regular part of the way they inspect and run the business. Best practices for senior managers include:

- Quickly and irrefutably establish that there will be one source of the truth; no alternate versions of data, metrics, or dashboards should be introduced. Align compensation with metrics.
- Collect data and measure performance from the customer's point of view—not to meet internal objectives.
- Drive for consistent data collection, measurement, and SLOs across all products, businesses, and geographies, while taking different product technologies, business models, regional differences, and starting points into account in how metrics are rewarded.
- Drive for fast integration and standardization across products, lines of business, and mergers and acquisitions, while remaining open to innovations that can be driven into the global standard for how data is interpreted and used.
- Drive participation and adoption—actively involve all levels in development to ensure that the right requirements are identified for high usage and intended business results, and continually educate and communicate the importance of management by metrics. Lack of use contributes to failure.
- Drive it from the top—clear and consistent vision, hands-on leadership, and follow-through are required to drive the organizational change needed for the standardization of data and metrics that will enable the objective, fact-based assessment and discussions necessary for improvement.

Finally, the collected metrics must be used to provide a vision of the future—not a view of the past. If customer support organizations are to become effective agents for change, they need to do more than analyze the captured data and report on what happened in the past. They must use it to help to predict what is likely to happen in the future and proactively address it.

“Business intelligence has always been critical to understanding underlying customer issues and turning customer support into a more strategic customer relationship management tool. Many organizations collect metrics today on support activities to provide reports to their customers on past accomplishments to strengthen their relationships. But the value in the information isn't just in looking backward, but also in looking forward to the additional benefits that have yet to be realized.”

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