Tech Line

Turning Data into Insights with Transformational Reporting and Analytics Tools

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With so many options available, how do you decide which best serves your center's requirements? A look at the path from raw data to insights.

Contact centers have never lacked for data. With increased pressure for efficiency, optimization and profitability throughout the organization, centers need to use that data in smart ways—not just for reporting, but for truly analyzing activity historically and in real-time, where possible. Mature centers focus on finding insights that lead to actions that positively impact the center and the customer experience. Whether packaging data into user-friendly interfaces, drilling down into reports to learn more about what the data presented reveals, or using powerful analytics capabilities to really understand what is going on and why, centers can transform their operations and the customer experience by leveraging advanced reporting and analytics tools and processes.

The Road from Data to Information

The contact center industry has witnessed the introduction of various forms of analytics, scorecards and dashboards, each carrying the promise of extracting "business intelligence" from a broad spectrum of structured and unstructured data. Before we can decide which application or approach best serves a given requirement, we need to be crystal clear on definitions and concepts as we walk the path from raw data to insightful information.

Data are the raw bits and bytes produced by the systems and applications used in the contact center. Structured data centers have long relied on, such as handle times and service levels, are organized in fields in a database within the application. Table 1, on page 3, describes common sources of data within a contact center. The sheer number of repositories shows why centers seek consolidation. The latest additions—unstructured data such as voice recordings or desktop events—further complicate making sense of it all.

Reporting refers to organizing the raw data and presenting it in various ways. Most applications have "canned" reports and offer options for customizing. When available reporting options fall short of requirements—whether substantive or cosmetic—analysts often dump data into various tools (e.g., Excel, Access, Crystal, data warehouses, etc.) to create custom reports or combine data for presentation.

Consolidation of data is the first step in analytics. However, simply combining data from multiple sources doesn't imply analysis. Creating insight or meaning from the data is the essence of analysis—

that is, using the relationships revealed by the data, ideally leading to action within the contact center and across the enterprise.

Keeping Score

Dashboards and scorecards are created in many centers, often manually, and can be a gateway to true insight and understanding of the operations and opportunities for improvement when done right. While the words are sometimes used interchangeably, a "scorecard" can be thought of as a way to address the question, "How did I/we do?" It presents a historical performance picture against targets and the peer group, along with trends, generally using visual indicators (e.g., red, yellow, green) along with numbers. A "dashboard," on the other hand, is more likely to answer, "How are we doing?" It typically provides a real-time view with gauges or some other sort of visual indicators. In either case, these tools are most useful when applied against a balanced set of metrics that consider such things as productivity, quality, costs and the customer experience.

Both these means of keeping score provide a report of a sort, bringing data together from multiple sources. Thus, to support a useful scorecard or dashboard, the center must integrate data from a variety of systems. With the right tools, users can then drill down to understand more about the information from the

data behind it, wherever it may reside.

So how do the technology tools do this? Data integration and warehousing capabilities, such as OnLine Analytical Processing (OLAP) and Extract Transform and Load (ETL) typically come into play. Vendors use standard mechanisms to extract or link to data from the various databases and to process the data. Figure 1 shows an example of what these tools provide—extracting the data, normalizing it so that related data can be linked and tapped, packaging and publishing the data for use by a wide range of users.

Turning Information into Insight and Action

Beyond keeping score, the big leap is taking data and the information it conveys and using it in smart ways. That's where business analytics or business intelligence comes into play, creating insight and action from data—whether from a report or scorecard, or from an analytics engine. The key is recognizing how data can play a role in decision making, which requires several steps:

- Understanding what is happening, including trends

- Understanding why it is happening

Figure 1: Vendors provide Scorecards and Dashboards that bring together the wide-ranging data in a center
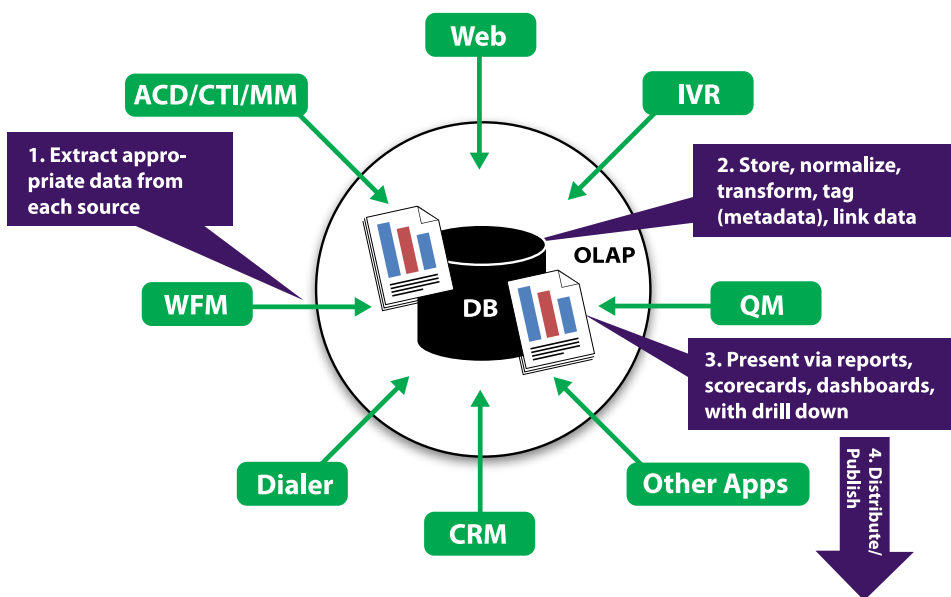
Analytics Applications and Suppliers

Performance optimization/workforce optimization suite. Suite vendors (e.g., Verint, Nice, Aspect, Envision and others) offer speech analytics, usually some level of data analytics (including scorecards and dashboards) and (perhaps) desktop analytics. This option may be the best place for many to start, given how the various performance tools fit together (see Figure 2).

Standalone analytics vendors in the contact center space. There are several categories of analytics applications for the contact center. Contact center analytics is a specialty for these suppliers, so they know how to bring this data together and generally have prebuilt connectors to the most typical data sources. Speech analytics vendors (e.g., Utopy, Callminer, Nexidia) offer applications for gaining value from audio recordings. Data analytics vendors (e.g., Merced) offer applications to consolidate the plethora of data produced by various applications (see Table 1). Analytics for the agent desktop is another "hot" topic—see "It's Time to Put the Spotlight on Desktop Optimization," Pipeline, August 2010.

Enterprise analytics or BI tools. Most major players for enterprise analytics are now owned by big companies—the most typical being Cognos (IBM), Hyperion (Oracle) and Business Objects (SAP). These tools are driven from within IT. The contact center has to be part of the project team to ensure that their requirements are met.

Multi- or crosschannel analytics. Vendors such as ClickFox offer analytics applications specifically to integrate the data from various channels to drive understanding of the total customer experience.

Home grown. Some companies have "home-grown" analytics tools as part of a business application or purpose–built specifically for scorecards/dashboards. The risk we often see with this approach is that it doesn't go far due to time and resource constraints. It often ends up with minimal integration of data sources and thus a low-value result.

Other sources. There are various other options for analytics tools within the contact center. Don't forget to research applications, such as CRM, Web analytics, business process management or other channel-specific tools for analytics components that might meet your requirement. ℗

- Determining the "what if" of continuing this trend (and its impact)

- Making predictions for future planning based on other "what-if" scenarios of change

These steps enable a center to drive decision-making and "action from insight." A true analytics tool should help facilitate these steps, including offering predictive capabilities and enabling the analyst to tie different information together to derive "a-ha" moments. But short of powerful tools, insightful resources with analytical minds can still address some of the goals of analysis using reports or scorecards and dashboards and the data behind them.

The sidebar on page 2 provides an overview of the various types of vendors that provide scorecards, dashboards and analytics.

Putting the Right Tools in Your Toolkit

With so many options available, selecting an approach or tools for analytics must be part of strategic planning. Otherwise, companies risk buying multiple reporting and analytics tools that don't necessarily fit together (at least not well). IT and the business must work together, with IT offering valuable insight for technical planning on how best to access, consolidate, and integrate data.

Start by defining the vision consistent with your business, service and technology strategies for what you want your analytics application to deliver. Then inventory your existing contact center and enterprise applications for reporting and analytics—whether in use or not. Figure 2 on page 4 gives you some ideas of where to look. Next analyze the gap between what you have and what you need. Compare your specific requirements to the existing capabilities you uncovered. Prioritize the requirements that you cannot fill with current tools and define

Table 1: The contact center has many data and reporting sources to tap

Source	Types of Data	Representative Report Types	Notes/Comments
Network	▶ Call activity (e.g., volume, talk time)	▶ Standard reports from provider or based on any services subscribed to	▶ Reports from network service provider via portal and/or monthly delivery
ACD	▶ Call, agent, trunk, phone number, call routing path statistics	▶ Real-time and Historical ▶ Standard and Custom	▶ Focused on inbound phone contacts
Email or other media	▶ Contact, agent, contact type statistics	▶ Real-time and Historical ▶ Standard and Custom	▶ May be much like ACD data if using full routing tool for other media
IVR	▶ Call and activity statistics (e.g., volumes, success rates)	▶ Volume and completion or transfer rate most typical (from IVR and/or ACD)	▶ Must build data capture into applications; minimal reports standard
WFM	▶ Predicted vs. Actual (e.g., volume, handle time, staffing) ▶ Adherence	▶ Real-time and historical	▶ Integrate with ACD for data (historical for forecast/schedule and real-time for adherence) ▶ May integrate with other performance tools such as QM
QM	▶ Call quality scores	▶ Agent and team scores and trends	▶ Most valuable when combined with performance data and voice of the customer data
CRM	▶ Contact outcome ▶ Workflow ▶ Customer, case or account history	▶ Contact history	▶ Can duplicate business application data and lead to conflicting reports—must be rationalized
Business applications	▶ Contact outcome	▶ Case- or account-based business results	▶ Increased value when combined with contact statistics from the ACD
Dialer	▶ Contact resolution—ring no answer, voice message, contact made ▶ Interaction outcome	▶ Contact rates ▶ Outcomes (e.g., sales)	▶ Data available depends on technology architecture—position of Dialer with ACD and IVR, and role of dialer app vs. business app
Desktop and screen activity	▶ Time in application/screen Navigation through screens and fields ▶ Full video	▶ Time in application for structured data	▶ May include structured or unstructured data ▶ See *Pipeline*, August 2010
Voice recordings	▶ Call recordings	▶ Tied to defined words or phrases	▶ Unstructured data becomes structured through speech analytics

the technology needs and people and process implications that accompany them.

Then, develop a plan for meeting your requirements that includes the overall timeline and milestones for each phase of the project. Perform a thorough evaluation to ensure that you optimize your choice. Plan the implementation effort recognizing the complexity and realities integration entails. If analytics was easy, everyone would be doing it! A successful implementation will require a solid integration plan and well-defined pilot with time for refinement before roll out. Once rolled out, you will need to continuously refine and optimize your processes. Unfortunately, even the perfect tool and implementation process won't ensure the achievement of business value. The value comes from doing something with the insights revealed.

Seeking and Achieving Value from Data

Like everything else in contact centers, reporting and analysis is not simply about the technology. Technology is the enabler. To achieve value, you have to have the people and processes in place. You will only reach the transformative potential with a holistic approach to a complex opportunity.

Contact centers that succeed at using reporting and analytics to drive transformational change typically set up a dedicated analytics group. It's unlikely you will get the most value by simply assigning analysis responsibilities to people who manipulate Excel reports today. Hire and train people to have the right knowledge and capabilities to leverage these powerful tools.
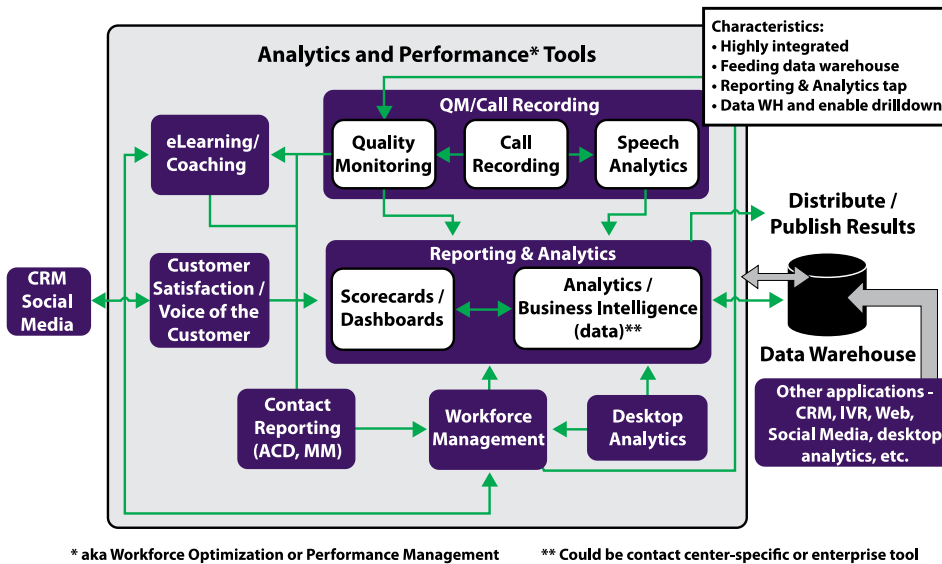
In addition, centers need a formalized process for taking action on the insights analysis reveals. Ideally, this process includes an enterprise commitment. You will identify optimization opportunities outside of contact center control (e.g., marketing, products, back-office processes, documentation, etc.), and you want to link with enterprise efforts. Your analytics process and the changes it drives should tie in with your overall support organization to synchronize process improvements, system changes, training and other changes for the center and the enterprise. Using reporting and analytics to drive true value for the contact center and your organization requires an ongoing commitment and recognition of the value to keep it alive. ℗

Figure 2: Analytics and Performance Tools go hand-in-hand

Analytics and Performance* Tools

Characteristics:
• Highly integrated
• Feeding data warehouse
• Reporting & Analytics tap
• Data WH and enable drilldown

QM/Call Recording
- Quality Monitoring
- Call Recording
- Speech Analytics

eLearning/Coaching

Reporting & Analytics
- Scorecards / Dashboards
- Analytics / Business Intelligence (data)**

Customer Satisfaction / Voice of the Customer

CRM Social Media

Contact Reporting (ACD, MM)

Workforce Management

Desktop Analytics

Distribute / Publish Results

Data Warehouse

Other applications - CRM, IVR, Web, Social Media, desktop analytics, etc.

* aka Workforce Optimization or Performance Management   ** Could be contact center-specific or enterprise tool

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