Red Hat was working with separate applications across incompatible enterprise systems, all requiring manual intervention to complete key customer sales processes. This situation impeded access to unified data—a critical component for making right-time decisions.


The integration delivers a completely automated data synchronization across the key systems necessary for operational insights. Similarly, a plan is underway to use Red Hat JBoss Data Virtualization for agile data integration across sales, marketing, and support systems to speed up business intelligence and analytics solution delivery. This will provide a multi-dimensional, 360-degree view into customer data which will lay the foundation for advanced customer analytics.

“With C360, customer data flows seamlessly between systems. As soon as we enter the order, it shows as booked in Oracle, then automatically shows up in Salesforce. The manual process is completely eliminated.”

AMY OWENS
MANAGER, I.T. SERVICE-ORIENTED ARCHITECTURE (SOA) SERVICES & ENTERPRISE SERVICE BUS (ESB), RED HAT
**CHALLENGE: CUSTOMER DATA INTEGRATION ACROSS SYSTEMS**

Having up-to-date customer data available in real time to support faster and better business decisions is essential to Red Hat success. However, with disparate systems accumulated through acquisitions and growth, Red Hat was faced with customer data spread across numerous incompatible systems, limiting its ability to access an integrated view of customer data.

Red Hat knew that full life-cycle analysis was vital to making decisions about engaging with customers, going to market with its products, and evaluating the effectiveness of its strategies. Yet internal analysts had to jump through hoops to stitch data together.

Red Hat management needed the ability to look up the status of a customer in real time and understand what that customer purchased, how many opportunities were open, and the current status of those opportunities. Similarly, financial analysts needed to know how many orders a customer placed, what percentage discounts it was given, and the size of orders. Both teams needed their information updated with today’s data, not last week’s or last month’s. But with data from Salesforce.com, the marketing team, and support team all held in different applications, this was impossible.

A major issue arose when Red Hat partners booked orders. The orders were bypassing Salesforce.com, the content management system used by the internal sales reps and customer support personnel, and going directly into Oracle. Those transactions then had to be manually loaded back into Salesforce.com so that the sales team could track the orders, which inevitably led to delays. Days, sometimes weeks would go by without an accurate, real-time picture of customer transactions.

“We needed a real enterprise-grade integration capability cutting across all our disparate systems—regardless of whether they were on-site, homegrown, third-party systems like Oracle, or cloud-based applications like Salesforce,” said Narayanan Raghavan, senior manager of enterprise application services at Red Hat.

**SOLUTION: OPEN SOURCE-BASED INTEGRATION PLATFORM**

The goal of the Red Hat Customer 360 initiative was to automatically update customer data across systems without manual intervention. To achieve this, Red Hat built and deployed a data integration platform using its own open source cloud-enabled technologies, including:

- Red Hat JBoss Enterprise Application Platform, the main application server backbone.
- Red Hat JBoss A-MQ, a high-performance messaging platform.
- Red Hat JBoss Fuse, a lightweight enterprise service bus (ESB).

Using these open source technologies, Red Hat integrated its customer data across its key systems including Salesforce.com, Oracle E-Business Suite, and Oracle Customer Data Hub. This integration forms the foundation for holistic, accurate, and consistent customer data and enables Red Hat to get a 360-degree view of its customer engagement.

The solution is an excellent example of how open source technologies can be used to build a complex, robust, and resilient integration platform. “It makes sense for us to use our open source technology because it brings standardization and flexibility,” explains Mandeep Chaddha, vice president of global operations and enterprise data strategy at Red Hat.
**CUSTOMER CASE STUDY**
Red Hat integrates enterprise systems for a 360-degree view of customers

**BENEFITS**

**ACCURATE, CURRENT, CONSISTENT DATA**
Prior to C360, visibility into customer transactions was significantly delayed. “Now when a salesperson enters an opportunity, everything is integrated automatically. There’s no need to jump between systems,” said Amy Owens, manager of IT SOA services and ESB at Red Hat. Similarly, for orders that go directly into Oracle E-Business Suite from Red Hat partners, the integration allows them to be picked up and loaded back into Salesforce.com in real time.

“With C360, customer data flows seamlessly between systems. As soon as we enter the order, it shows as booked in Oracle, then automatically shows up in Salesforce. The manual process is completely eliminated,” said Owens.

**SIGNIFICANT EFFICIENCY GAINS**
Before C360, Red Hat teams normalized customer data day and night, and could spend hours simply checking the consistency of customer names. Each instance needed to be flagged and cross-referenced by hand. Projects that used to require one to two weeks of this type of manual data normalization now require just one to two days for the process—a vast improvement.

With C360, Red Hat also benefits from increased visibility into customer subscription renewals. “We now have a common master template for customer data. We can seamlessly take a transaction and put it back into Salesforce so it appears in the sales reps’ pipeline, giving them visibility into customer renewals before they are set to expire,” said Suzy Steele, director of operations data management for Red Hat.

**PRESCRIPTIVE ANALYTICS THAT INCREASES SALES**
Using real-time customer data, Red Hat is creating better predictive models—including product propensity models around its customers and is now providing prescriptive analytics for its field execution teams. “We can study certain patterns of behavior that our customers have had across their entire life cycle. From there we can determine which patterns may lead to them purchasing a new product from us, and which patterns indicate the best opportunities to up-sell or cross-sell,” said Arman Assa, director of global analytics for Red Hat. “We can get a bit more prescriptive in the engagement model with the customer, and that helps our field reps sell more efficiently.”

**ENHANCED DECISION-MAKING AND AGILITY**
Red Hat can now analyze data and make decisions faster. “When making big business decisions, the data is now ready in real time for analysis and action,” said Steele. In addition, managers can instantly view all the different types of engagements—marketing, pipeline, and transactional—that a customer has had with Red Hat.
FUTURE PLANS

Now that customer data from multiple systems is in sync, Red Hat is in the process of increasing data reporting capabilities to create a complete and immediately visible picture of a customer’s engagement activity. The company is implementing Red Hat Data Virtualization to bring together these formerly disparate pieces of information, giving the Red Hat sales team the ability to analyze and run reports in days instead of months.

Although C360 currently focuses on customer data, Red Hat also plans to start using Red Hat JBoss Fuse to focus on product data. “Integrating real-time product information across all our enterprise systems is our next big goal,” said Raghavan.

“With this solid foundation of integrated data and systems, we can now implement high-powered analytics and data visualization tools that will make us the strongest possible decision-making organization,” said Chaddha.

“With C360, we’ve built a resilient system. As things continue to evolve, we won’t have to worry about the foundation anymore,” added Raghavan. “With future projects, we only have to worry about the actual implementation itself.”