

How Cisco Is Using Data to Drive Digital Transformation

Cisco optimizes sales and supply chain processes with an integrated data platform, easier data access, and self-service analytics tools

Data is the fuel that drives Cisco's digital transformation. But making this data truly useful for automating and digitizing our business processes is an ongoing journey to improve how we manage, access, and get the most insights from that data.

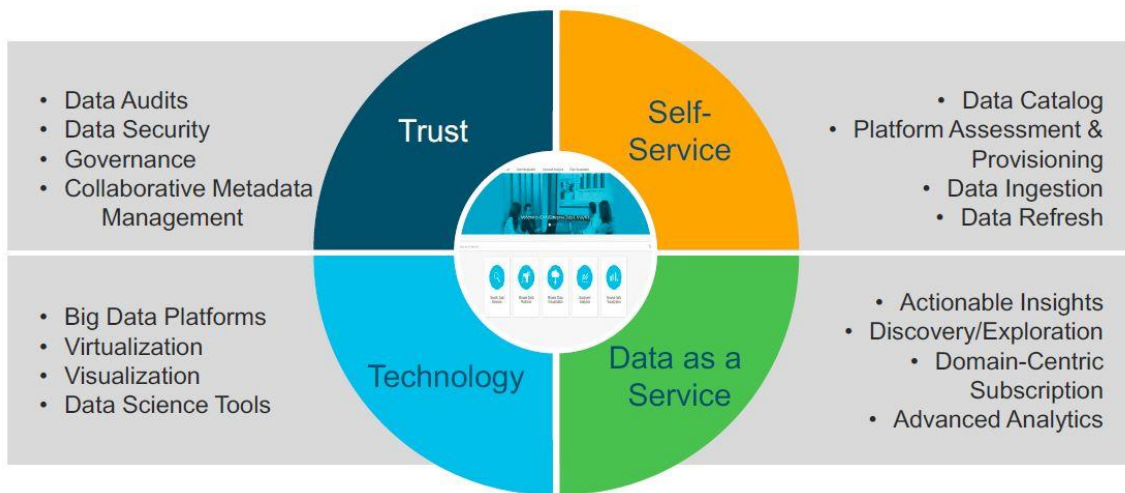
We started this journey with isolated data silos, which limited the visibility of key information and often led to duplicate or conflicting data points. To eliminate these issues, we built an enterprise data ecosystem that is supported by clear governance structures, data ownership assignments, and policy enforcement. This ecosystem allowed us to establish single sources of truth for key corporate information assets such as customers, partners, and installed products. Today we use this standardized data to answer the fundamental descriptive question, "What happened?"

The second phase in the journey was to aggregate, optimize, and add flexibility to data platforms so we could answer the predictive question, "What will happen?" In this phase, we made the data available so it could be consumed by various users in various forms and for various purposes across the enterprise. We also focused on strengthening user identity and access controls and adding a predictive capability so users could identify the most likely future scenario and its business implications.

Phase 3 involved building the Enterprise Data and Analytics (eDnA) platform, which supports automated application access to data as well as self-service provisioning, data exploration and visualization tools and advanced analytics. As shown in Figure 1, the eDnA platform uses technology and trust measures to offer data-as-a-service access for applications and self-service access for users.

The eDnA platform and self-service tools allow users to generate on-demand insights and collaborate for maximum business value by answering the prescriptive question, "What should we do about it?" The answers to that question help us transform the way we work, create new business models, and take advantage of new business opportunities – all based on recommendations and outcomes guided by prescriptive data and analytics.

Figure 1. Core Elements of the eDnA Platform



“Our whole data journey has been about connecting and converting the right data into actionable insights that are embedded within the transactional workflow to drive faster business outcomes,” says Shanthi Iyer, Cisco Vice President of Enterprise Data, Security, and Services.

Two Cisco IT deployments—for supply-chain quality and automating renewals of service contracts—show the business value we have obtained by building integrated data platforms and self-service analytics.

Connected Renewals: Digitizing Service Contracts

As Cisco’s product offerings evolve to include more software and services as well as hardware, renewals for subscription and service contracts represent a larger share of our revenues. These contracts also represent a significant aspect of product value for our customers, so renewing the right contract at the right time is important for continuity.

Cisco IT has centralized data and processes for contract renewals to simplify and automate much of the process. With consolidated data on services contracts, we apply analytics to automate standard activities such as alerts about service contracts due for renewal. Easier data access supports self-service contract management for customers and channel partners as well as automated processes for price quotes, billing, and sales compensation activity.

The digitized renewals process also gives Cisco account teams and channel partners insights about new opportunities for service-related sales such as:

- When to approach a customer about new service needs
- Opportunities created when a customer’s existing products should be reviewed for refresh
- Alerts when products reach end-of-life status, with recommendations for replacement products to consider

Implemented largely through the Cisco Impact recurring revenues platform for channel partners, the data integration and automated processes have produced significant early results:

- A pilot project with a Cisco channel partner improved visibility of service upgrade opportunities valued at more than US \$1 billion and produced \$57 million in committed revenues in just one world region
- Automated data delivery between the installed products database and the renewals system generated 120,000 renewal contract price quotes, resulting in \$24 million revenue
- Additional data analysis of the installed products database identified more renewal opportunities valued at \$300 million

Connected Quality: Transforming Product Quality with Data

The purpose of our Connected Quality program is to use data to improve the quality of Cisco hardware products at “the source” throughout the manufacturing and supply chain processes. This effort begins by applying advanced analytic models to what we call “connected” data—the information about each product unit as it moves through the supply chain and manufacturing processes to the customer.

Because this connected data provides detailed insights into quality, we are able to:

- Identify engineering and manufacturing problems when they arise to improve processes quickly and reduce defects
- Minimize hardware failures and improve the quality of products once they are installed at customer sites
- Reduce product returns and optimize dispatch of field service personnel and resources

As of mid-2017, the Connected Quality program has produced a five percent reduction in returned products and a 30 percent reduction in supply chain cases (for known hardware issues) that receive the highest escalation.

A Foundation for Cognitive Analytics and Machine Learning

For the next step in our data journey, we are looking to answer the ultimate question for digital transformation: “How do we optimize?” This answer requires advanced cognitive analytics that leverage machine learning and artificial intelligence technologies, all within a dynamic hybrid cloud environment for data storage and access. We will create deeply analytical computing systems that learn and interact naturally with our employees, channel partners, customers, and other users to gain the deepest insights about improvements to be made in our operations and business performance.

“In the Cognitive phase,” says Shanthi Iyer, “actions are done by the data, with products that learn, adapt and evolve, with a dynamic view of customers and consumption, and with distributed decision-making – where you drive innovation through data to take advantage of new business models and opportunities.”

For More Information

To read additional Cisco IT articles and case studies on a variety of business solutions, visit [Cisco on Cisco: Inside Cisco IT](#)

[Transforming the Network through Automation and Analytics](#) - (Spanish)

Note

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