

Introduction

In 2009, Cisco® embarked on an enterprise architecture journey that would not only unify business strategy with IT investments, but also effect transformational change companywide. More than three years later, fruits of the Cisco architecture-led planning discipline are being realized through a strategically aligned IT portfolio and investment decisions, simplified processes, resource and system optimization, and improved ability, overall, to capture business transformational value.

“Enterprise architecture isn’t just lip service at Cisco,” says Shawn Shafai, member of technical staff, IT Customer Strategy and Success at Cisco. “All our planning and decision-making are based on an architecture framework. We make it real by ensuring that everything we do in IT is based on business architecture. We understand what our clients are doing and what they need, and then translate that into technical architecture and roadmaps that deliver capabilities to meet our clients’ requirements.”

Challenge

Successful enterprise architecture cannot be created in separate business or IT centers. Enterprise architecture is a discipline that requires continuous commitment and business-IT alignment, as well as upfront buy-in and ongoing support from executives and senior management. It requires a cohesive engagement model and governance process, built-in metrics, and skilled people.

To lay the foundation for its enterprise architecture practice, Cisco IT:

- Established a reference model for the business based on the Business, Operations, Systems, and Technology (BOST) framework. “Our reference model is a true corporate asset,” says Andy Starr, vice president, Global Business Services at Cisco.
- Adopted a holistic methodology that considers all interrelated aspects of the enterprise environment from the client’s business model down to the underlying technology assets.
- Established architecture job profiles, training, and a community structured to build and support talent.
- Instituted governance and metrics that enforce accountability, drive desired behaviors, demonstrate value, and measure progress. All collateral is captured in a central repository with visibility by all stakeholders.

Solution

The Cisco enterprise architecture is rooted in regular architecture and investment accountability sessions that direct and reinforce continuous business-IT alignment. The architecture-led process maps business requirements to the IT capabilities needed to support them, and investments to the value delivered by IT services and the underlying systems, infrastructure, and technology that enable the capabilities. This process feeds IT investments (projects and programs required to support business requirements) and guides portfolio management (prioritizing and funding projects and programs).

Effective architecture-led planning requires that all stakeholders have the ability to create and maintain a shared vision of the future.

“It all starts by changing the conversation between IT and the business,” says Karen Hensey, director of Information Systems, Connected IT Services Architecture Practice at Cisco. “Everyone has to speak the same language. IT has to be able to show what’s working and that IT is directly contributing to moving the business toward its goals.”

A Holistic, Business-Centric Framework

To keep Cisco IT and the business in sync, stakeholders adopted an enterprise architecture approach and use the BOST reference framework, taxonomy, and methodology.

“We leveraged the BOST model from Proact Business Transformation and have built this framework up over time to truly be a core asset for Cisco,” says Hensey.

The BOST framework organizes inter-linked planning models based on four architecture views of the enterprise: business, operations, systems, and technology. Business success is largely determined on how well an enterprise can align their capabilities with constantly changing requirements in all four views:

- Business: What business is being enabled?
- Operations: What capabilities are required to support that business?
- Systems: What applications and tools are needed?
- Technology: What technology is used to enable the applications and tools?

Architecture-led planning helps ensure that IT investments can be tracked back to one or more business objectives and corresponding business capabilities. Within the framework, business capabilities are understood in terms of their current implementation compared to their target state. Roadmaps to achieve a target state (realize the business strategy) are developed based on the difference between the current and target states and prioritization of the business capabilities. The capabilities that Cisco IT needs to deliver are sequenced on the roadmaps. Everything that Cisco IT does aligns with the roadmaps. Only programs and projects that align with a target state architecture and one or more business capabilities receive funding.

Cisco IT has made huge strides in improving operational excellence and reinvesting in growth and innovation without growing the total IT budget by focusing on simplification and moving resources away from operational tasks that do not differentiate or move the business forward.

Quarterly architecture reviews, held by the chief information officer and senior staff, validate IT and business alignment. These reviews are forums for vetting dependencies, risks, opportunities, and projected costs, savings, and benefits. This knowledge fuels informed decision-making and agile course-correcting when business needs change.

Architecture Roles and Training

Successful enterprise architecture requires skilled people to execute the discipline, and business and IT stakeholders who champion and advance the value proposition. Cisco developed handbooks of well-defined roles and responsibilities for several new job profiles. Included among them are business architects and stewards, systems-view and technology-view principal architects, reference system architects, technology domain architects, and solution designers. Across the IT architecture roles are modelers who capture objects and information to depict business and technology architectures graphically.

In addition to traditional, technology-focused architecture skills, the job roles place increased importance on business acumen and alignment with business strategies and requirements. A community structure helps to build and support talent within groups that share a common purpose (for example, business architects, system architects, and technology architects). Communications are targeted at stakeholder communities, and forums encourage knowledge sharing and best practices.

Cisco offers formal courses, mentoring programs, and certifications for IT architecture roles. Additionally, everyone in IT must pass mandatory BOST framework introductory training.

All the job roles facilitate the relationship between IT and the business. Stakeholders collaborate to institutionalize, evolve, and grow the Cisco enterprise architecture discipline.

Visibility and Traceability across the Enterprise

Cisco uses third-party IT planning and enterprise architecture software platforms as the central repository for all architecture and investment portfolio collateral. Stakeholders get a single view into the IT architecture and portfolio. They garner a better understanding of where IT investments are going, and what IT services are receiving the benefit or being contracted to support the work.

This integrated source of information structured around a shared reference model helps ensure that data is consistently represented and up to date. Visibility across the four architecture views helps pinpoint redundancies in processes and systems. For example, early in the enterprise architecture implementation, Cisco IT pared down existing instances of Salesforce.com by more than 50 percent using the unified architecture approach.

Business and IT stakeholders create, manage, and track a wealth of data including operational requirements, capability roadmaps, business and technology-focused reference models, analytics, and reports. Fact-based metrics establish credibility among management. Metrics provide the basis for informed investment decision-making and effective alignment of people, processes, and systems with business and technology goals.

What's Next?

To date, business stakeholders have embraced Cisco IT's ability to deliver capabilities tied to strategic goals, while serving up innovation, cost savings, and operational efficiencies. Despite any successes, enterprise architecture will remain a multiyear journey that requires continuous development and maintenance.

To increase the discipline's relevance and value, Cisco IT is focusing on several areas. Included among them are:

- Developing an end-to-end lifecycle for managing requirements through the four BOST architectural views.
- Tightening the handoff between portfolio management with program and project execution.
- Improving the change management process.
- Growing architecture talent and the community.
- Continuing to drive adoption by demonstrating the value derived from IT and business alignment through metrics-based results and benefits.
- Deepening the upfront understanding of opportunities (business strategy and service improvement) and business case development and traceability.
- Continuing to build on the business and IT engagement through joint accountability reviews for architecture, investments, and services.

For More Information

Cisco IT Insights: [IT as a Services Organization](#)

Cisco IT Case Study: [How Cisco IT Customer Care Built a Successful ITaaS Organization](#)

Cisco on Cisco Best Practice: [IT as a Services Organization Roles](#)

Cisco IT Case Study: [How Cisco IT Transformed into a Services Organization](#)

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