Global networking solutions giant Cisco has grown at a breathtaking pace since its founding in 1984, spurred on by an aggressive acquisition strategy. Of its almost 150 acquisitions, nearly 50 have occurred since 2007 and several have become $1 billion business units (BUs).

While Cisco is widely known and respected for its best practices in integrating acquisitions acknowledged, the process is not as easy as it looks. Each acquisition presents a fresh challenge to assess operating models and merge them with Cisco’s own.

But acquisitions are not the only challenge Cisco faces. The operating environment of this fast-moving technology company is constantly evolving to keep pace with business growth and to leverage advances in technology. For example, with the advent of cloud-based services, Cisco’s customers have begun to ask for more options for managed services in addition to the usual practice of an outright purchase of networking routers and switches. A shift in customer expectations of this magnitude requires dramatic changes to operating models throughout the enterprise.

It’s this convergence of multiple streams into an already fast-moving river that led Cisco to Troux.

“Because of the speed at which we were moving, the complexity grew exponentially,” explains Russ Conway, Cisco’s Director of Business Architecture. “There’s a massive amount of raw simplification that needs to occur in our systems, processes, organizations and operating models.”

The Complexity – Agility Challenge

Complexity is a fact of life that isn’t about to go away at Cisco and no one was prepared to sacrifice any of the company’s agility by introducing a framework or practices that are inherently static. Cisco differentiates itself by anticipating and profiting from new market opportunities and business models. Any new business architecture could only succeed if it enhanced this model.

With these realities, Troux’s approach, combined with an architecture framework and reference model, to establishing a common understanding to interpret business models and requirements across the organization resonated strongly.

“What one business unit calls a subscription, another might call a recurring model, or a lease,” says Conway. “If we let the vernacular or taxonomy get in the way, then we assume things to be different when they are not.”
A common vernacular translates to more than just speaking the same language. “The common reference model allows us to solve for the collection of requirements across the whole business, rather than for individual BUs,” explained Conway, who emphasizes both the increased quality of the outcomes and the efficiency of a holistic approach.

**Establishing the reference model**

The first step to defining the reference model was to create an Architecture Practice that brought together experts from IT and Business & Operations. The diverse perspectives on the business that these representatives brought were crucial to obtaining a 360° view of the business models and operational functions to be supported by the enterprise architecture (EA). As a result, the planning function of the Architecture Practice is able to span the considerations of Business, Operations, Systems and Technology.

“These four views of the architecture must work in concert to deliver value to the enterprise by identifying “What” needs to change in order to drive the transformations of the company,” Conway explains. “The Architecture Practice is not a reaction to our projects. It is positioned as a planning function: it’s what defines the projects.”

The Architecture Practice develops integrated roadmaps that describe programs, investments and the sequencing necessary to achieve the desired business outcomes. Cisco's corporate vision and strategy inform the Architecture, which in turn informs portfolio, priority and design decisions.

The Architecture Practice works with the CIO and operations leads who are driving efficiency and simplification to provide the most value at the lowest cost. The team also works with business unit executives or product managers throughout the company's 30 business units to establish understanding and to apply the EA tool kit.

The EA kit includes models and patterns to structure conversations and capture information that can then be transferred and compared across the BUs. This is critical, given that the team is working with BUs that may be comprised of a variety of acquisitions.

**An aid to decision-making**

Establishing a common vernacular and reference model has been instrumental in identifying redundancies and other inefficiencies. This has eliminated roadblocks when executing initiatives and allows Cisco to direct investments to the right places and in the right sequence.

Of particular note, EA has been successful in stopping initiatives before over investment. What sounds like a simple or isolated request, especially related to enabling a new business model, usually has ancillary processes and capabilities that also need to transform. Monetizing offerings in a XaaS model, for example, will also require change in everything from sales crediting and compensation to revenue recognition to fixed assets and internal IT processes.
In keeping with the goal of maintaining and enabling agility, Cisco’s EA isn’t intended to discourage leaders from new pursuits; instead, it provides the information that leaders need in order to make better decisions and act with greater agility, while at the same time eliminating duplication and executing more efficiently.

Policy definition extension

The Business Architecture Practice started with a reference model. For the past year, they have extended it and are using it in a policy definition of management, and to determine service costs related to running the business.

“We had made significant progress over the previous years in the Systems and Technology views of our architecture,” highlights Craig Huegen, Sr. Director of Architecture for Systems and Technology. “Our challenge had been making it more business relevant, which our combined practice has helped us do”.

The model now provides a framework for understanding how much the company is spending and where. “The reference model maps the company’s operational activities to about 250 discrete services, which in turn are associated to the underlying systems and technologies that enable them,” explains Huegen. This greatly simplifies cross-functional conversations and provides the platform to get everyone moving quickly toward a shared business outcome.

Buy-in and cultural change

This is not the first time the company has initiated an Architecture Practice, but it is the first time that it was established with a mandate across both the business and IT organizations. From a planning standpoint, Cisco’s architecture practice is driving changes that are pervasive and touch most aspects of the company. Buy-in and broad adoption are a challenge the team addressed with an innovative training and certification program that continues to attract participants from across the organization.

Today the core team has between 20-25 architects, mostly based in corporate headquarters in San Jose. Close to 100 architects in various functions have also achieved a level of silver or gold certification as part of the combined practice. It also draws from the extended team of more than 2,000 EA aware bronze certified employees who are located throughout Cisco’s global organization. Gold certified employees are now serving as mentors to silver and bronze level employees.

“This approach means that we continue to develop talent, we continue to drive a lifestyle,” said Huegen. Conway concurs, “Our success criteria is not implementing EA, it is changing the culture.”

An evolutionary practice

Cisco is committed to increasing the capacity of every member of its team. To achieve this, the extended team of architects is embedded within the business or functional IT units while sharing common performance objectives with their community of architects. Within the business unit, they represent the Architecture practice and play a key role in teaching and supporting their BU colleagues. They also bring BU learnings back to the core Architecture team to ensure continuous feedback and improvement.

The next step for the Architecture Practice is to connect the model with other planning functions, such as portfolio investment decisions, and continue to improve the connection between planning and execution. Huegen describes this as “Architecture-led planning and services-led execution”. To this end, the team is focused on what they call “True Governance”, going beyond the usual regulatory compliance check to embrace a thorough adherence to the blueprints that were committed as part of the permitting process.
This shift from organizational autonomy to a model built on the goal of structured planning presents the obvious cultural challenge related to any change. This however is a change that is increasingly being embraced as the only realistic way that the enterprise can come together to reach our shared objectives.

“We will be focusing on the people in our communities through an extension of our architecture curriculums and incorporating cross-functional reviews into our performance processes,” Conway says.

“As part of the next annual planning cycle we expect that Architecture will lead the way in determining ‘What’ we need to do in order to achieve our corporate goals.”

Russ Conway, Director of Business Architecture – Cisco

- Redundancies and inefficiencies identified
- Earlier and more complete understanding of opportunities and challenges
- Investments directed to right places & in right sequence
- Decisions made faster & with greater confidence