

MIS QUARTERLY EXECUTIVE

How USAA Architected its Business for Life Event Integration

By integrating its previously separate insurance, banking and investment products around customer life events (e.g., buying a car, getting married or buying a house), USAA is able to deliver a superior customer experience. To achieve the integration, USAA had to re-architect its business by redesigning structures, roles, incentives, processes and IT systems. The USAA case provides four principles for architecting a business to provide superior customer experience, which will become increasingly important in the digital economy.^{1,2}

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USAA Excels in Customer Experience

In the digital economy, the need for companies to deliver a superb customer experience is more important than ever before.³ Smartphones and tablets have changed customers' expectations of how easily they should be able to complete transactions. And social media facilitate rapid broadcasts of customer satisfaction—or dissatisfaction. But delivering a great customer experience involves far more than smart applications of new technologies.

USAA is a financial services company that excels in customer experience. It offers a growing number of products and services, including property and casualty insurance, banking, life insurance and investment management—but despite this, it is able to make its customers' lives simpler. It does so by integrating its products around customer life events, such as buying a car, getting married or buying a house.

USAA's superior customer experience is reflected in high levels of customer satisfaction, which shows in the company's Net Promoter Scores (NPS),⁴ a customer loyalty and satisfaction metric. From 2009 to 2015, USAA was awarded the highest NPS in the U.S.—even higher than Apple and Amazon (see Table 1).

¹ Sia Siew Kien, Michael Rosemann and Phillip Yetton are the accepting senior editors for this article.

² The authors would like to thank the executives at USAA who participated in our study. This research was made possible by the support of the sponsors and patrons of the MIT Center for Information Systems Research (CISR).

³ For example, in a 2011 survey of 2,291 consumers in the U.S., 89% reported they stopped doing business with a company and turned to a competitor due to poor customer experience (the survey is part of the Annual Customer Experience Impact Report by RightNow/Harris Interactive).

⁴ For details of NPS, see <https://www.netpromoter.com/know/>.



Table 1: Net Promoter Scores in Different U.S. Industries in 2013

Industry	Leading Company	Top Firm's NPS	Industry Average
Airlines	Southwest	66	30
Auto Insurance	USAA	76	41
Banking	USAA	78	29
Brokers and Investment	Vanguard	56	45
Cable TV	Verizon	32	15
Cell Phone Service	Tracfone	39	25
Department Stores	Costco	78	62
Smartphones	Apple	70	41
Software and Apps	TurboTax	54	24
Grocery and Supermarkets	Trader Joe's	63	36
Health Insurance	Kaiser Permanente	35	12
Homeowners Insurance	USAA	80	41
Online Shopping	Amazon	69	43
Travel Websites	TripAdvisor	36	21

Source: Satmetrix, and OneSource for industry averages

Customer satisfaction has led, in turn, to strong financial performance at USAA. In 2014, the company's more than 27,000 employees generated revenue of \$24 billion. Its net profit margin was 14.2%, compared with the industry average of 9%. The customer retention rate was 98%, and its customers (referred to as members) had increased to 10.7 million, up by 25% from three years earlier. Table 2 summarizes USAA's performance between 2009 and 2014.

USAA's success in creating a seamless customer experience is facilitated by several elements, including a customer-oriented organization, a customer-focused mission and IT systems that provide a customer view across products. Our research shows, however, that USAA is able to deliver extraordinary customer experience because management has mastered a rare competency: business architecture. While each element is important, it is the purposeful and coherent choice and combination of all the elements that makes USAA's success noteworthy.

This article analyzes how leaders redesigned USAA to integrate products around life events—and, as a result, enabled the company to deliver a superior customer experience. First, we define

and introduce the imperative for business architecture. We then describe the concept of life events in more detail and document how USAA re-architected its overall business to achieve the necessary integration. Finally, we share the lessons that are relevant to executives for other companies seeking to integrate products to deliver a superior customer experience.

The Business Architecture Imperative

Traditionally, architecture in businesses has focused on systems and technology,⁵

⁵ Many articles published in *MIS Quarterly Executive* on enterprise architecture rely on the definition in Ross, J. "Creating a Strategic IT Architecture Competency: Learning in Stages," *MIS Quarterly Executive* (2:1), 2003, pp. 31-43. That definition of enterprise architecture, sometimes calling the concept "enterprise IT architecture," is "the organizing logic for applications, data and infrastructure technologies" Articles include Bradley, R. V., Pratt, R. M. E., Byrd, A. B. and Simmons, L. L. "The Role of Enterprise Architecture in the Quest for IT Value," *MIS Quarterly Executive* (10:2), 2011, pp. 73-80; Kettinger, W. J., Marchand, D. A. and Davis, J. M. "Designing Enterprise IT Architectures to Optimize Flexibility and Standardization in Global Business," *MIS Quarterly Executive* (9:2), 2010, pp. 95-113; and Smith, H. A., Watson, R. T. and Sullivan, P. "Delivering an Effective Enterprise Architecture at Chubb Insurance," *MIS Quarterly Executive* (11:2), 2012, pp. 75-85.

Table 2: USAA Financial Performance, 2009-2014

	2009	2010	2011	2012	2013	2014
Revenue (\$ million)	17,558	17,946	19,036	20,729	20,971	24,033
Expenses (\$ million)	14,538	15,309	16,908	17,897	18,245	20,623
Net Income (\$ million)	3,020	2,637	2,128	2,832	2,726	3,410
Members (millions)	7.4	8.0	8.8	9.4	10.1	10.7
Employees (thousands)	21.5	22.6	23.4	24.7	25.8	27.0

Source: USAA Reports to members 2011-2014

with the IT unit “architecting,” for example, applications and data. Effective IT architecture, however, needs to reflect the way in which the company operates. Thus IT architecture is just a component of the broader concept of enterprise architecture.⁶ Although IT architecture is becoming a more mature discipline in companies, little is known about the non-IT aspects of enterprise architecture—often called business architecture—or how companies should go about it.

While most business architects in companies are located in the IT unit,⁷ we posit that business architecture is not, first and foremost, an IT systems challenge. It is an organizational design challenge. We define business architecture as the *purposeful (re)design of structures, roles,*

incentives, processes and IT systems to create coherence between a business’s mission or goals and its capabilities. Business architecture helps to align the organizational design elements (structures, roles,⁸ incentives, processes, IT systems) needed to execute business strategy.⁹

Many different events, such as a change in strategy, goals or mission, can trigger a revision of business architecture. Or a revision might be triggered by the emergence of new business models or new digital capabilities, or by a recently diagnosed misalignment in design elements. Setting the strategic goal of serving customers in a more integrated way to provide a superior customer experience can be such a trigger. It certainly has been for USAA, as we describe below. USAA offers evidence that, despite the challenges, business architecture is a worthwhile pursuit.

USAA and Life Events

USAA was founded in 1922, when a group of U.S. Army officers met in San Antonio, Texas, to address their need for auto insurance. Since military members were regarded by many

6 Mostly within IT, the term enterprise architecture is used commonly to refer to the “high-level view” or “organizing logic” of a company’s business processes and IT resources. Enterprise architecture is often viewed as comprising different connected layers, such as business processes, applications, data and IT infrastructure. However, the non-IT or business perspective of architecture often focuses on business processes (e.g., Tamm, T., Seddon, P. B., Shanks, G. and Reynolds, P. “How Does Enterprise Architecture Add Value to Organisations?,” *Communications of the Association for Information Systems* (28:1), 2011, pp. 141-168; and Ross, J. W., Weill, P. and Robertson, D. C. *Enterprise Architecture as Strategy*, Harvard Business Press, 2006. Outside of the IT realm, some practitioners refer to “organizational architecture,” which looks beyond processes to include “hardware” (organizational structure, processes, incentive systems), people (skills) and “software” (culture). See Howard, R. “The CEO as Organizational Architect: An interview with Xerox’s Paul Allaire,” *Harvard Business Review* (70:5), 1992, pp. 106-21.

7 In a poll conducted on MIT CISR’s website in December 2013, almost 60% of the 118 respondents said their business architects were within IT (see Ross, J. W., Mocker, M. and Sebastian, I. *Architect Your Business—Not Just IT!*, MIT Center for Information Systems Research, Research Briefing (14:12), 2014.

8 Although roles, accountabilities and skills could be listed as separate elements of a company’s design, we believe that clear role definitions establish accountabilities as well as the requirements for skills needed to perform the roles.

9 The recognition of the need to align different organizational design elements is not new. For example, Galbraith’s “Star” model includes people, structure, rewards, processes and strategy as design elements; culture is explicitly excluded because it is cannot be influenced directly but rather (just like firm performance) is impacted by all other elements. See Galbraith, J. R. *Designing Complex Organizations*, Addison Wesley, 1973.

insurers as too high risk to insure, the officers decided to create their own insurance company. Over the years, USAA has stayed focused on the military and has remained a member-owned, private company (and hence calls its customers “members”), while expanding its offerings to other financial products. Today, USAA has three major lines of business (LOBs): a property and casualty (P&C) insurance company, a federal savings bank and a financial advice and solutions group that offers life insurance and investment management.

Employees are guided by USAA’s mission, which is:

“To facilitate the financial security of its members, associates and their families through provision of a full range of highly competitive financial products and services; in so doing, USAA seeks to be the provider of choice for the military community.”

Although USAA has focused on its members from the beginning, it has recognized that it could make it much easier for them “to get things done.” For example, when a member was thinking about buying a car, he/she would most probably research car manufacturers’ websites, ask the USAA bank for the conditions of a car loan, start negotiating with car dealers and ask the USAA P&C insurance arm for an insurance quote. Eventually, the member might get the loan, buy insurance and close the deal with the car dealer. The integration of all these steps was left to the member, requiring him/her to understand how the company was organized, namely by product line. For a car loan, the member needed to call the USAA bank, but the USAA P&C insurance arm (a separate company from the USAA bank) was responsible for car insurance.

The member had to manage this complex set of relationships. Furthermore, USAA realized that most of its products were purchased at the end of a member’s financial decision processes, making it difficult to actually fulfill USAA’s mission. For example, members usually sought auto insurance only after buying a car. But the decision to buy a car has far more impact on the member’s finances than the choice of insurance. To better advise members on which car to buy—or whether to buy a car at all—USAA needed to be part of the entire

financial cycle for members’ major decisions and events.

To meet this need, USAA developed a strategy focused on serving members through life events. It defined life events as major decisions and actions in a person’s life that had significant financial implications, such as getting married, buying a house, having a baby or leaving the military. As of September 2015, USAA’s website listed eight categories of life events: retirement, personal finances (e.g., doing your tax return), family life (e.g., becoming a parent, getting married, divorcing), disaster and recovery (e.g., hurricanes), military life (e.g., joining, deployment, leaving), auto (e.g., buying a car, making an insurance claim), home (e.g. buying a home) and work life (e.g., starting a new job).

Meeting a member’s financial needs related to a life event typically involves several products from multiple lines of business (banking, insurance, investments). USAA wanted to seamlessly integrate the different products and services to make financial decisions triggered by a life event easier and more fruitful, while minimizing the hassle associated with financial transactions. By serving members in terms of their life events, USAA was taking a more holistic view of each member’s financial needs and the member relationship.

Beyond presenting existing products according to members’ life events, USAA started to create integrated solutions for selected life events. The company’s first integrated solution, introduced in 2010, targeted the life event of buying a car. Known as Auto Circle, this solution allows members to select, buy (at a pre-negotiated price), finance and insure a car in a single interaction with a member service representative on the phone or by using USAA’s website or mobile app. Compared with the past, USAA now integrates all the steps involved in buying a car for the member and, as a result, has earned rave member reviews:

“Very, very happy with the USAA auto buying website! The program is well organized, well presented and easy to utilize. I’m pleased with the outcome of getting a great car at a great price and also am pleased with the seamless integration of all aspects of the experience, from research to auto

*selection to dealer identification to pricing to financing to insurance. Truly a one-stop shopping experience except for a trip or two to the dealer selected.*¹⁰ Posted on November 18, 2011, by user DesertRich, La Quinta, CA (a member since 1967)

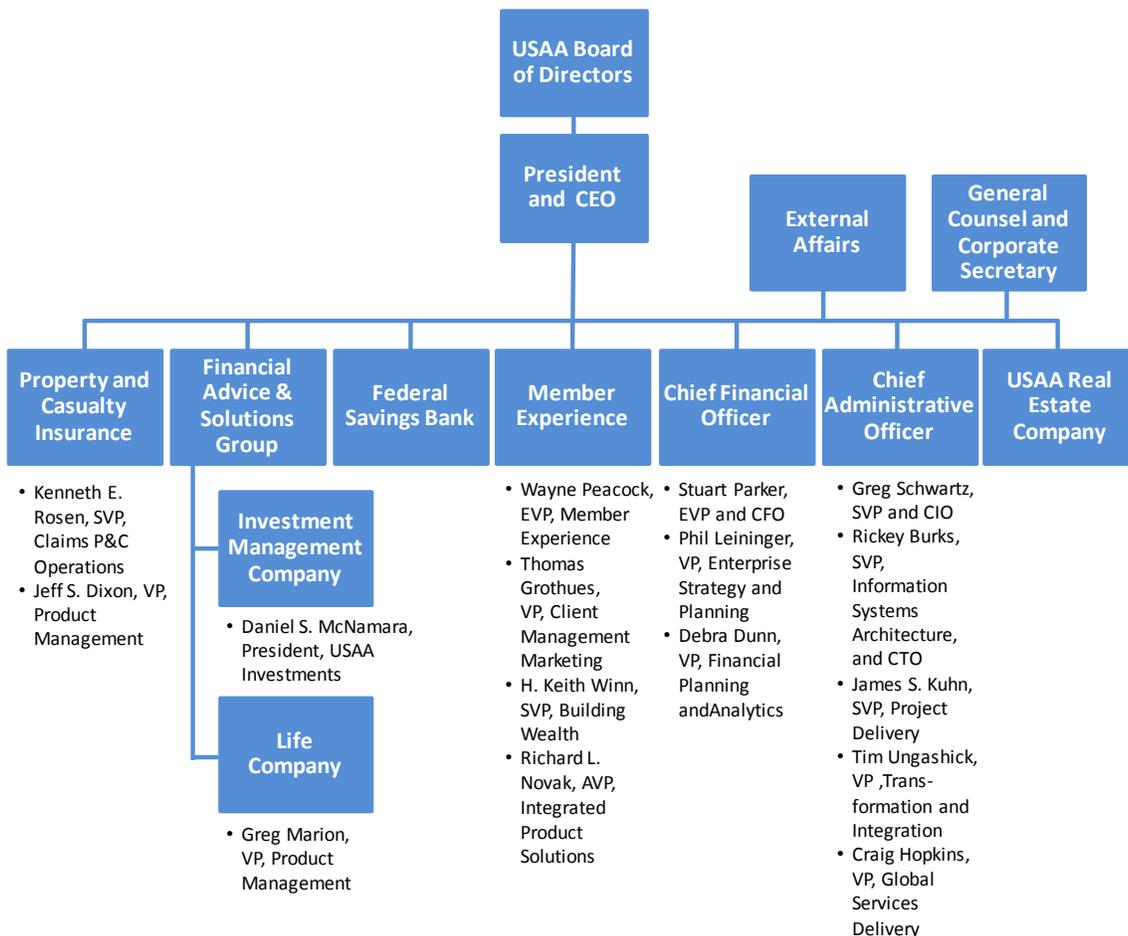
By 2015, USAA was offering integrated solutions for several other life events: house purchase, death of a spouse, divorce and military deployment. However, the company found that integrating products into seamless solutions for life events required redesigning the whole company, including how the business was organized, how employees performed their

jobs and were incentivized, and how IT systems were designed. In other words, USAA had to re-architect its business.

Architecting USAA’s Business for Life Events

We describe below how USAA reworked each design element of its business architecture (structures, roles, incentives, processes and IT systems) and how that redesign helped the company to implement its life events strategy. Table 3 summarizes the decisions USAA made for each design element, how decisions for different

Figure 1: USAA’s Organizational Structure in 2013



10 This review, and many similar reviews, was posted at https://reviews.usaa.com/4914/car_buying_service_main/car-buying-service-reviews/reviews.htm?page=30&sort=helpfulness.

Table 3: USAA’s Business Architecture for Life Event Integration by Design Element

Design Element	USAA’s Design Decisions	Contribution to Life Event Integration and Interdependencies with Other Design Elements
Structure	Create “Member Experience” (MX) unit	Takes cross-LOB/member perspective. Designs seamless life event solutions.
	Transfer member-facing employees to MX	Provides one face to member. Forces LOBs to work with MX.
Roles (including skills, accountabilities)	Separate responsibility for P&L (with LOBs) from member experience (MX)	Makes tension between conflicting priorities explicit. Forces open discussion about trade-offs.
	Introduce new decision-making forums under executive committee (EC)	Provides place for LOBs and MX to resolve integration-related tensions. Otherwise, integration-related decisions would be escalated to EC.
	Cross-train member service representatives (MSRs)	Enables operational people to live up to the promise of integration. MSRs previously served individual products but now serve a life event that cuts across products.
	Introduce new roles, like CFO business case team	Helps employees deal with increased complexity (i.e., helps product managers to develop integrated business case when they no longer have all required information and relevant people in their own unit).
Processes	Charge business process engineering team with redesigning internal processes	Defines how decisions are made in the new organizational setup to help employees with increased need for collaboration and changed accountabilities.
Incentives	Emphasize importance of mission of facilitating members’ financial security	Provides a compelling reason for integration effort. Acts as key criterion to resolve life event integration-related tensions (e.g., resulting from P&L vs. member experience separation).
	Increase top-management communication about extended responsibilities, importance of integration	Signals the importance of integration and how it relates to employees’ work. Helps change mindset from existing silo-thinking.
	Distribute bonus to all employees based on enterprise-wide performance	Encourages efforts to work with other functions and departments to realize integration.
IT Systems	Single customer information file	Provides technical foundation for integration, especially through data sharing. Enables MSRs to serve cross-product life events seamlessly.
	Create reusable (and reused) technology and business components (e.g., presentation layer, account-opening systems)	Supports consistency of functionality across products and channels. Mitigates the additional cost and time that integration requires.
	Establish cross-functional teams, including IT architects, when developing products/life events	Allows IT architects to push back on requirements that increase complexity of IT landscape. Avoids creating “spaghetti architecture” despite need for increased integration.

design elements interact and how they contribute to life event integration.

Redesigning Structures

A major change in USAA's business architecture involved creating a new Member Experience (MX) unit responsible for delivering a seamless integrated experience to members across products and channels. In establishing this unit in 2010, USAA centralized the company's 12,000 member service representatives (MSRs) who had been based in the individual lines of business. In addition to the call centers, MX also centralized channel management, marketing and sales. Figure 1 shows the organizational structure as of 2013.

The figure also lists the employees interviewed for this study. Note that although the organizational structure is deliberately mostly product- and function-oriented, the integration is achieved through the structure's interplay with other design elements (as described throughout later in the article).

Thus USAA created a single unit (MX) dedicated to integrating a member's life event experience across products and channels from all LOBs. Previously, each LOB had been focused on its individual product silo. MX is led by an executive vice president who reports to the CEO, which signals to everyone the importance of product integration across LOBs.

"We've said for years that we wanted to provide integrated solutions for our members. We've always said that working

across company lines is important. But it was no one's full-time job. And I always tell people it was like extra credit. You know, I'm in P&C. I'm going to get P&C stuff done first. If I have time, I'll do this other [integration] stuff." Thomas Grothues, Vice President, Client Management Marketing

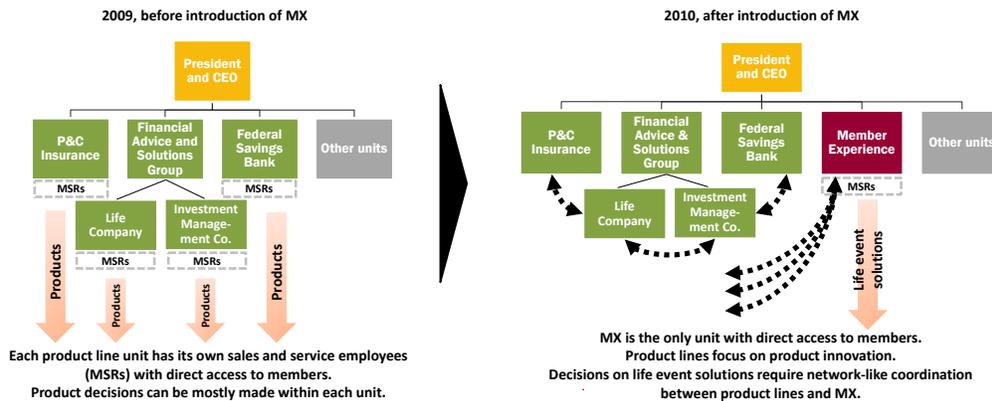
Transferring ownership of the member relationship to one central unit provides a single face to the customer:

"MX has been an unbelievably large change to our company. The concept was rather than have our members face off against different parts of the organization or multiple people, let's have a common front door engagement process for our members and everything that touches them." Daniel S. McNamara, President, USAA Investments

With all member-facing workers moved to the central MX unit, the headcount in LOBs was reduced by up to 75%. With no member-relationship responsibilities, product line leaders now focus on developing and supporting innovative products. As a consequence, LOBs now work differently.

Previously, the decision to introduce a new product could be made within an LOB. Now, though, LOBs have to go through MX to get their products out to members, which requires collaboration between LOBs and MX. USAA addressed the need for more collaboration by redesigning roles, including changing

Figure 2: Changes in USAA's Organization Structure



accountabilities and upgrading employees' skills. (Figure 2 is a high-level diagram that summarizes the changes in USAA's organization structure before and after the creation of the MX unit.)

Redesigning Roles, Skills and Accountabilities

The life events strategy created new organizational interdependencies between LOBs and MX that have made many decisions more complex. For example, a product leader cannot introduce a product without talking to colleagues from both other LOBs and MX. However, although MX is responsible for ensuring a seamless member experience, the profit-and-loss (P&L) responsibility for the underlying financial products remains with the LOBs.

Separating the LOBs' P&L responsibilities from member experience responsibilities, and requiring LOBs to go through MX to launch a new product, made a previously hidden tension explicit: although a new product might help the P&L of a specific LOB, it might adversely affect members' experience if it was not integrated with other products.

Life events created a need to resolve these conflicts and to coordinate decisions that span organizational boundaries. Initially, USAA found that these enterprise-wide decisions were passed up to the executive committee (EC):

"What started to happen was every decision, because it was complicated, and it affected multiple lines of business, had to go to the EC level for review, and suddenly they were meeting many times a week trying to make business decisions for people who should have been making them on their own."

Craig Hopkins, former Vice President, Global Services Delivery

Pushing so many decisions up to the executive committee was untenable because of both the workload it created and the time it took to make decisions. To make decisions about life events more rapidly, USAA introduced new and refined governance councils. These councils include forums for product line and MX leaders to debate product interdependencies and reconcile initiatives that have an impact on multiple product lines.

These decision-making forums provide a place for LOBs and MX to resolve the tensions related to integrated life events. Although these added structures helped to make members' lives simpler, USAA found they made its own organizational life more complex. The need for communication and coordination between LOBs and MX added time and cost to the delivery of new products.

"A project manager will lay out a plan [to accomplish specific goals for the effort] only to have a staff person look at the plan and say, oh, you didn't plan for integration ... You better put all these additional requirements in your plan. Not only does that increase project and line of business costs, it increases the project duration. So now you're not going to get to market as soon as you thought. Plus, you lost [some of your expected] return because of the extra costs." Craig Hopkins

In addition to changing decision-making accountabilities by introducing governance forums, USAA also introduced roles that help product leaders to get new products to market. For example, the business case for a product that is part of an integrated solution serving a life event has to consider benefits from cross-selling other products. It must also consider the added overhead costs of central functions, including MX, and the level of transfer pricing. This information is not available to an individual product manager. Hence a newly founded team in the Financial Planning and Analytics unit under the CFO helps build the business case for integrated solutions.

In addition to product leaders, USAA also had to train operational-level employees, especially MSRs, to service life events. Traditionally, MSRs had specialized in one product. For example, there were different MSRs for auto loans and auto insurance. So a member wanting to finance and insure a car had to talk to at least two different people in two different LOBs. Life events were designed to integrate the products from different LOBs.

To ensure high-quality centralized member support, USAA cross-trained MSRs to specialize in a life event. For example, one group of MSRs is cross-skilled to talk about Auto Circle. Another team, the Survivor Relationship Team, has been

designated to service the life events related to the death of a family member. This team limits hand-offs to other MSRs to protect the survivor from repeat conversations about the loss of a family member. Thus training employees across products was an important factor to enable them to live up to the promise of the integrated customer experience relating to life events.

Redesigning Processes

The concept of life events is changing how members engage with USAA. Instead of contacting different LOBs for different products, they now contact USAA to help them solve a problem triggered by a life event. Hence processes at the member interface needed to change. For example, when calling in by phone, a member is asked what she wants to do. Depending on the answer, she is routed to an MSR able to serve the particular life event, and the hand-offs common in previous processes have been eliminated or reduced.

Moving to integrated life events has also significantly affected employees' processes, especially due to the creation of the MX unit.

"Before MX, everything was in a line of business and just real easy. It was about 'I know a guy,' and that's how I got things done. ... That's just not going to be the way we can operate in the future. So what MX is doing is creating a battle cry for more discipline and rigor in the other parts of the enterprise." Product Line Manager

Integrating products to service a life event entails major cross-functional coordination and collaboration. This resulted in big meetings that include all relevant stakeholders.

"... literally everyone gets involved. So with home and auto in particular, we had a sizeable cross-functional team. Everybody had their area of expertise or responsibility to make sure we weren't missing anything."
Richard L. Novak, Assistant Vice President, Integrated Product Solutions

When a life event is next in line for introduction, a designated executive from MX shepherds the project for the development of the integrated solution through the new

approval process. With help from central support functions, including the CFO's business case team, the executive engages with the new decision-making forums to establish the scope and to ensure effective integration.

A business process engineering team, called Enterprise Integration, which reports to the chief administrative officer, is charged with helping to redesign processes and resolving process issues introduced by the growing interdependencies in the business. In this way, USAA helps employees deal with the new organizational setup created to make the customer experience more seamless.

Redesigning Incentives

Despite new structures, roles and processes, the new way of working was disruptive for USAA employees. Ken Rosen, Senior Vice President, Claims Property and Casualty Operations, noted that getting people to think first about enterprise goals as they go about their daily jobs represented a "huge, huge, huge cultural shift" for USAA:

"We received lots of feedback from employees, saying, 'That [integration] is not my job.' It was leadership's job to help employees understand why this is the right thing to do for the member and why it is a part of their job when serving the member."

Thus while redesigned processes, roles and structures defined how USAA intended to do business, actually fulfilling the planned changes depended on fundamental changes to employees' everyday behavior. USAA leaders addressed this cultural shift by continuously communicating why becoming an integrated financial services organization is important for USAA's members, for the company's mission and for employees. Many of these discussions started with the USAA mission statement and ended with the reminder "We know what it means to serve," which has become USAA's slogan.

USAA's mission of facilitating members' financial security provides a compelling incentive and buy-in for people to take on the additional effort required by integration. The mission is also used to resolve operational conflicts, including, for example, those resulting from separating responsibilities for P&L and member experience mentioned earlier. When requirements for

offering integrated life event solutions clash with individual LOB needs, the mission's imperative of "doing what is best for members' financial security" is applied as a key criterion to resolve the tensions that are inherent in any integration across different LOBs.

In addition, expanding people's thinking beyond their own organizational unit is fostered by a company reward program that pays out the same percentage bonus to nearly everyone when the company achieves its financial goals (but only employees who have met their own performance objectives receive that bonus). These incentives are reinforced by employees' "individual drive" to best serve members. As well as signaling the importance of integration, they encourage employees to transition from the previous product- and silo-based thinking to the enterprise-wide thinking conducive to integration around life events.

The enterprise-wide perspective is reflected in how USAA evaluates investment projects. There is always the risk that larger LOBs or products that contribute more to USAA's total revenue get more resources and attention. For example, auto insurance contributes 40% of USAA's total revenues. Another complication is that differences in the underlying financials of product lines can make them difficult to compare. Greg Marion, VP, Product Management for Protection Products noted that a life insurance policy wouldn't breakeven until seven years after the policy was sold. When investments are compared across the enterprise on the basis of a three-year cost-benefit analysis, life insurance initiatives often would not look as attractive because of the way the product financials work. However, management is committed to providing a full range of financial products and solutions for USAA's members—another example of applying enterprise-wide thinking.

"Our mission inspires us to provide a full range of products and services to meet our members' financial needs. Some of those are products and services from our smaller units that might not compete or be priorities on a pure ROI basis. However, for us to deliver on our strategic intent and be our members' trusted advisor, we have a different mindset for how we apply business

judgment to balance our investments."
Wayne Peacock, Executive Vice President,
Member Experience

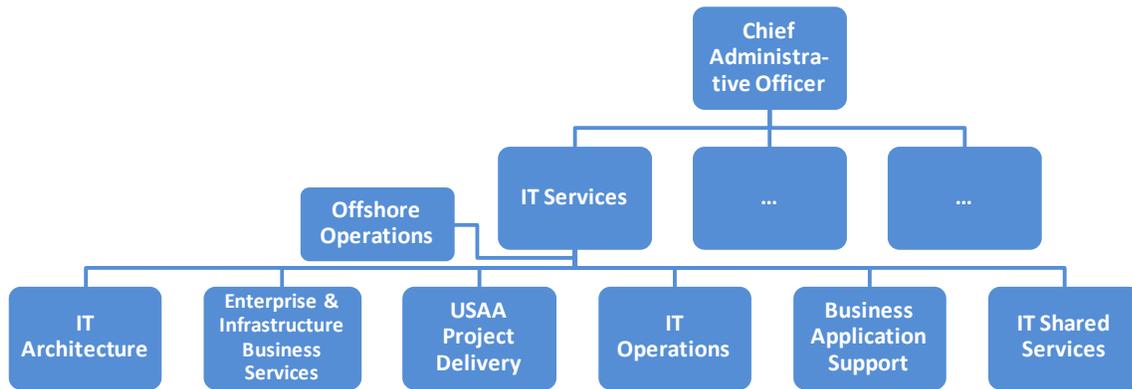
Redesigning IT Systems

As with other companies we've studied, architecture thinking at USAA originated in IT. Rickey Burks, USAA's CTO and chief enterprise architect, reports to the CIO. When he took on the role of chief enterprise architect, the company already had a single customer information file (actually not a file, but a central customer database). Developed in 1984, the customer information file provides a holistic view of a member's relationship with USAA across LOBs. USAA is now reusing this technology capability to integrate products around life events.

USAA uses the customer information file to integrate existing applications—for example, to support MSRs when they are advising members on buying, financing and insuring a car. Integrated applications minimize the need to switch between different systems to serve members during a life event interaction. These applications are the technology platform on which life event solutions are implemented. Without this IT platform, employees would have to manually do all the integration work to provide the illusion of seamlessness.

Given the importance of this integrated technology platform for servicing life events, USAA has put in place measures to protect it from becoming too complex. It is easy to see that with increasing needs for integrating IT systems, USAA could quickly end up with a "spaghetti architecture" in which there are lots of interfaces connecting various systems with redundant data and functionality. To prevent this from happening, USAA's architects identify opportunities for simplification and reuse, design the necessary interfaces and suggest ways to build new functionality into reusable components. A unit within IT called Enterprise and Information Business Services (see Figure 3) is dedicated to developing reusable components and ensuring that the IT unit achieves its goal to "deliver for the project, but build for the enterprise." By 2012, 50% of the functionality in new systems resulted from reuse of existing technology components.

Figure 3: USAA’s IT Unit Organization



The importance of reuse in a company requiring more integration is two-fold. First, the savings from reusable components offset the increased cost of integration (USAA estimates it now spends at least 25% of application development cost on integration testing). Second, reusing components avoids inconsistencies that would disrupt a seamless member experience across different products and channels. With reuse, the same functionality is used regardless of whether the member accesses a life event solution via the web, a mobile app or the portal used in the company’s contact center.

Because the IT unit provided USAA with the technology platform for integration across LOBs, it is credited with leading the company toward its vision for supporting members’ life events.

“In many cases at USAA, the business vision lags [behind] the IT vision. If it weren’t for the vision and the leadership of the IT organization, we would not have been able to make the progress we’ve made as quickly as we have, because they’ve been the ones who always were building for integration since day one in order to make life simpler and easier for our members.”
Wayne Peacock

USAA has always been a leader in applying digital technologies to improve customer experience. For example, in 2012, it introduced video-banking ahead of other U.S. banks to allow members to address their needs via video rather

than by using the web site or an app.¹¹ In July 2014, USAA announced a pilot that allowed its members to ask IBM’s Watson questions about the financial implications of transitioning out of the military.¹² Early in 2015, USAA was the first U.S. financial institution to roll out biometric (facial and voice) recognition functionality for members to log in to USAA’s mobile app.¹³ Constant digital innovation allows USAA to drive additional benefits from its underlying capabilities. In doing so, it further distances itself from competitors who are still working to integrate across products.

Lessons on How to Architect for Integration

As stated earlier, USAA is atypical in several respects. For example, it is a member-owned, private company focused on members of the military and their families. Being privately held allows it to take a longer-term view compared

11 See Adams, J. “How USAA Innovates Online Banking,” *American Banker*, September 1, 2012, available at: http://www.americanbanker.com/btn/25_9/usaa-innovates-online-banking-with-voice-recognition-and-customer-analytics-1052161-1.html?zkPrintable=1&no pagination=1.
 12 Taft, D. K. “USAA Taps IBM’s Watson as Military Veterans Advisor,” *eWeek*, July 23, 2014, available at <http://www.eweek.com/database/usaa-taps-ibms-watson-as-military-veterans-advisor.html>.
 13 “USAA adding biometric technology for mobile app customers,” *San Antonio Business Journal*, January 14, 2015, available at: <http://www.bizjournals.com/sanantonio/blog/morning-edition/2015/01/usaa-adding-biometric-technology-for-mobile-app.html>; see also *USAA Rolling Out Biometric Logon to Accounts in Q1*, USAA press release, January 16, 2015, available at <https://communities.usaa.com/t5/Press-Releases/USAA-Rolling-Out-Biometric-Logon-to-Accounts-in-Q1/ba-p/55785>.

with publicly traded companies, which are constrained by quarterly reports to shareholders. Being a member-owned company helps to “put the customer first.” Furthermore, USAA has not been through the mergers and acquisitions that have created so much diversity in other companies.

Because of these differences, many companies would have a difficult time replicating USAA's success. Moreover, there are mutual insurance companies and other privately held companies that follow customer-intimacy or -focus strategies but do not replicate USAA's success. Explaining USAA's success only in terms of its structural differences would be missing the point.

The USAA story illustrates that any strategy aiming to provide a superior customer experience that depends on product integration requires a competency in business architecture.¹⁴ The USAA case suggests four key principles for effectively applying business architecture for product integration.

1. Articulate the Purpose of Integration

Earlier, we defined business architecture as the purposeful (re)design of a company's design elements. A company must be architected to meet its specific purpose. For USAA, the purpose was to provide a simpler, more seamless member experience to better fulfill its mission. Other companies have different purposes. For example, Wells Fargo, a U.S.-based financial services company, intends to put the customer first by offering a single, multichannel experience. Senior management at Wells Fargo established integration requirements by clarifying business goals in its annual report. This level of clarity is essential to architecting the business for integration. If the purpose is not clear, companies' integration efforts are bound to fail, and business architecture initiatives become an end in themselves.

So what makes a good purpose? Ideally, the purpose provides a meaningful reason for employees to take on and sustain the effort

¹⁴ Similarly, other studies of manufacturing companies have found that to turn “strategic customer orientation” into business performance required a combination of lean process, human and technical practices (i.e., a coherent design rather than just individual practices). See Hong, P., Yang, M. G. and Dobrzykowski, D. D. “Strategic customer service orientation, lean manufacturing practices and performance outcomes: An empirical study,” *Journal of Service Management*, (25:5), 2014, pp. 699-723.

that inevitably comes from re-architecting the business. At USAA, leaders used the company's mission to explain the relevance of the transformation to employees at all levels. This clarity of purpose not only provides direction for high-level architecture, it also helps to resolve the tensions that are unavoidable when products that were formerly separate become parts of an integrated offering.

2. Implement a Technology Platform to Facilitate Integration

Product integration requires sharing data across different product lines.¹⁵ For example, USAA has been able to convert integrated solutions for life events into a superior customer experience, partly because MSRs do not have to look up customer data by product from a plethora of different systems. Companies lacking USAA's data sharing capabilities would struggle to provide seamless integration to customers.

Building a powerful platform can be a long and arduous journey. Many companies become overwhelmed by the complex legacies they've built over time. It is essential to focus on the most important data (e.g., a seamless supply chain, a transparent view of products or, as in USAA's case, a single view of customers). With laser focus on the key point of integration, companies can start to re-architect the business around their most critical business capabilities. In an era of cloud technologies and professional services, there are options for deploying technology capabilities faster than was formerly possible.¹⁶

Companies that already have technology platforms for effective data sharing need to protect them from becoming a “spaghetti architecture”—a challenge that is aggravated by increased integration requirements. By involving architects early in the development of life-event solutions, USAA's IT unit could

¹⁵ Platforms supporting product integration will follow the “coordination” or “unification” operating models (Ross, J. W., Weill, P. and Robertson, D. C., op. cit., 2006.). An operating model defines the levels of process integration (i.e., data sharing) and process standardization a company desires. Coordination emphasizes process integration over process standardization; unification combines both. Other operating models include replication (standardization without integration) and diversification (neither standardization nor integration). USAA's platform follows the coordination model.

¹⁶ Fonstad, N. and Ross, J. *Building Business Agility: Cloud-Based Services and Digitized Platform Maturity*, MIT CISR Research Briefing, February 2015.

assess the implications of integration for the technology platform and potentially help redefine requirements.

We found a similar involvement of IT in cross-functional teams at ING Direct Spain, whose CIO states that the role of IT architects in early phases of product design is to “challenge ... the business ... on the implications that their requirements might have for the future ... maintainability and sustainability of the platform” and to “help the business to redefine the requirements.”¹⁷

3. Architect Beyond IT

To integrate its products into solutions around life events, USAA redesigned its structures, roles, governance responsibilities and incentives. The sum of all these changes created coherence across the company’s design elements.¹⁸ Such coherence is not optional—and it cannot be achieved by IT.

Leaders must be aware of the interdependencies of multiple design elements—otherwise a change in a system or a new structure may not only fail to have the desired impact, it could have a negative effect on the company.¹⁹

Because design elements are interdependent, changes in one necessitate or facilitate changes in others. For example, as USAA introduced the MX unit and transferred MSRs to it, it also had

17 For further details on ING Direct Spain and how it protects its IT platform, see Mocker, M. and Ross, J. *ING Direct Spain: Managing Increasing Complexity While Offering Simplicity*, MIT CISR Working Paper No. 390, April 2013.

18 Other authors stress the importance of coherence between multiple design elements. See Galbraith’s “Star” Model mentioned earlier (Galbraith, J. R., op. cit., 1973). Also, in the context of implementing process orientation within a company, researchers found that multiple dimensions have to be considered, including process design, process owners (i.e., roles), information technology, human resource systems, organizational culture and others. See Zarei, B., Chaghoei, Y. and Ghapanchi, A. H. “Investigating the Relationship between Business Process Orientation and Social Capital,” *Knowledge and Process Management* (21:1), 2014, pp. 67–77.

19 In a transformation effort toward process orientation that is similar to USAA’s, a study found that “the job identity of the employees, budgeting, reimbursement systems, IT structure and the architecture of the facilities were often referred to as obstacles [to the implementation of process management].” See Hellström, A. and Eriksson, H. “Among Fumblers, Talkers, Mappers and Organizers - Four applications of process orientation,” *Total Quality Management and Business Excellence* (24:5-6), 2013, pp. 733-751. In another related field—business model innovation—other researchers suggest that “business model innovation ... is a multidimensional innovation phenomenon that encompasses the entire organizational system and processes that govern how the parts or subsystems fit together and work with each other to create or reinvent a business.” See Damapour, F. and Aravind, D. “Managerial Innovation: Conceptions, Processes, and Antecedents,” *Management and Organization Review* (8:2), 2012, pp. 423-454.

to cross-train the MSRs so they could service members across product lines. At the same time, USAA had to introduce more collaborative product development decisions, because product managers could no longer introduce new products in their silos.

Other companies have also realized how important the coherence between different design elements is. The Dutch conglomerate Philips defined a strategy that emphasizes both local product innovation and global scale and scope.²⁰ To implement this strategy, Philips’ management identified three global processes to be standardized across its markets: idea to market, market to order and order to cash. These new processes necessitated new roles, including executive business process owners. To support its global processes, Philips is also implementing a new IT platform, called the Philips Integrated Landscape. In addition, to balance the requirements of global processes with the needs of local product innovations, Philips had to adapt responsibilities, incentives and skills.

4. Design for Learning

It is difficult for any single person or group of people to identify all the interdependencies arising from integration across the business. In fact, given the complex interdependencies, it is unlikely that a company will get the design right from the start. Hence management needs to recognize that a company’s business architecture will continue to evolve. USAA has found it must re-architect itself regularly. For example, when it introduced the MX unit, an overwhelming number of decisions were initially pushed to the executive committee level. Introducing new decision-making forums reduced the load on the executive committee and accelerated decision making. Architecture is always a work in progress. New possibilities become evident as the company accumulates—and learns from—successes and failures. The speed of business change in the digital economy makes this kind of ongoing learning and adaptation a business imperative.

20 For further details on Philips’ transformation, see Mocker, M., Ross, J. and Van Heck, E. *Transforming Royal Philips: Seeking Local Relevance While Leveraging Global Scale*, MIT CISR Working Paper No. 394, February 2014.

Concluding Comments

We believe that companies striving to deliver superior customer experience through product integration must aggressively implement thoughtful, consistent business architecture. It is the responsibility of senior management to design processes, structures, roles, incentives and IT systems that enable the achievement of the enterprise's articulated purpose. Given the importance of simple, integrated customer experience in the digital economy, now is the time to redesign your business for success. Companies will not be able to tinker their way to greatness in the digital economy. They will either architect themselves for the digital economy or become irrelevant. The four principles derived from the USAA case provide a foundation for architecting a business to provide superior customer experience through integration.

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