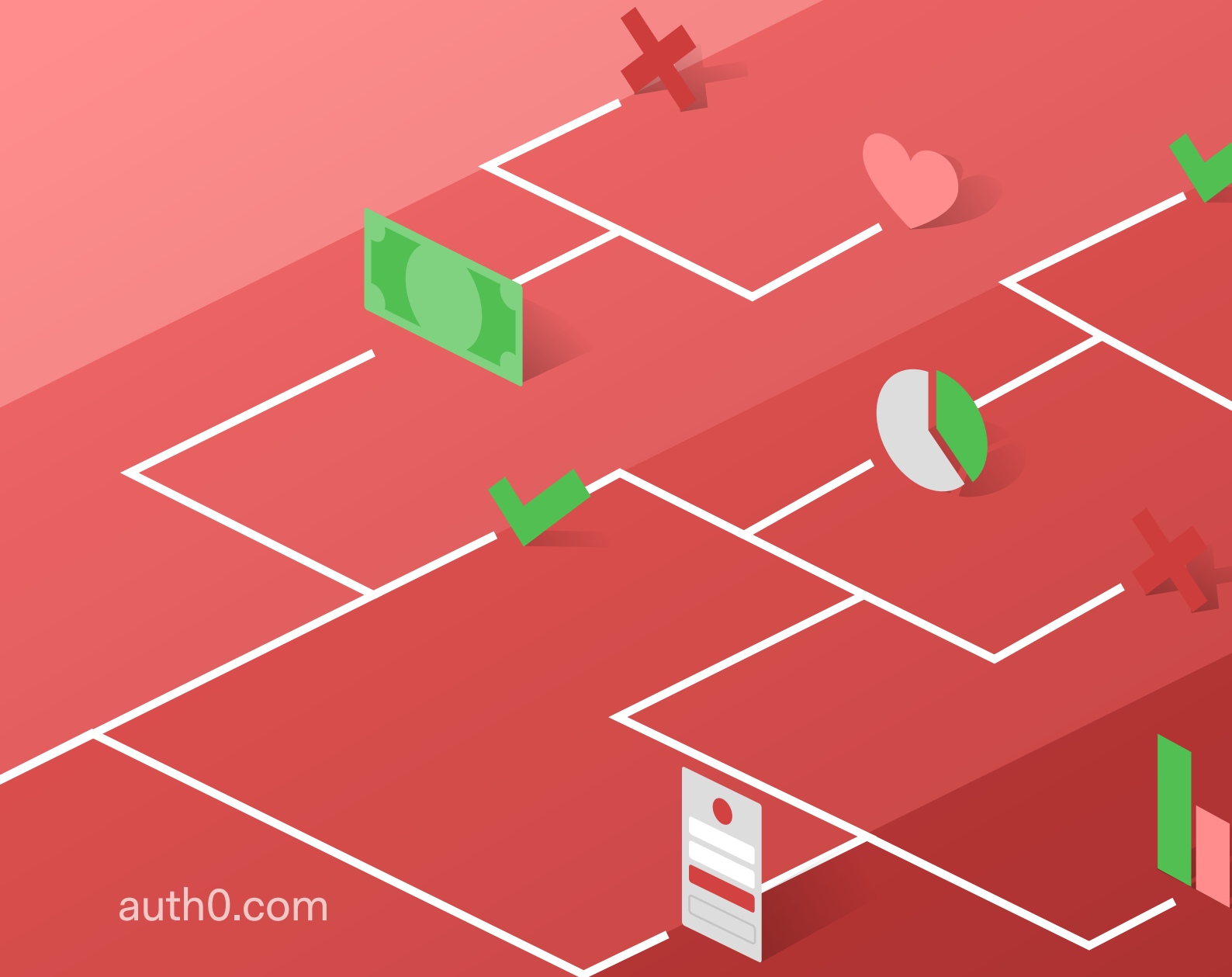




Mistakes To Love: A Survey of Identity Mistakes

In the surrounding architecture, when buying and building identity, and leading app development teams.



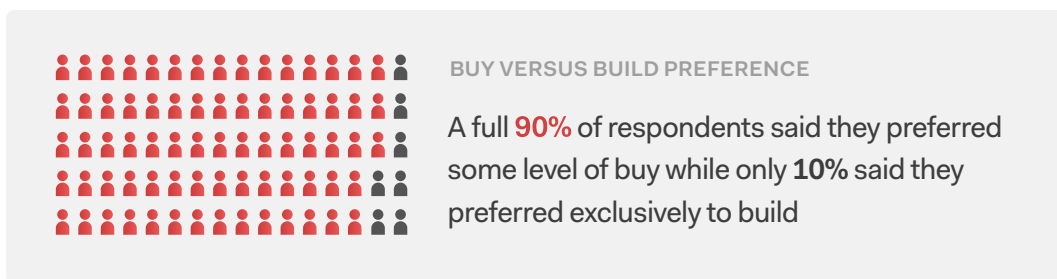
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Executive Summary and Biggest Takeaways

This survey asked your peers—42% of whom are identity decision-makers—about the mistakes they made and their successes in working with other teams on identity projects, both when they bought and when they built.

THE BIGGEST TAKEAWAYS:



- The data suggests a slight learning curve around identity from build to buy, in that the experience of building makes people more likely to buy the next time
- The mistakes most commonly cited in build scenarios had to do with underestimating **scope, timing, resources required, and complexity**
- The most commonly cited mistakes in buy scenarios had to do with **integration of the identity solution to apps as well as to other parts of the architecture** surrounding the solution
- Poor execution and implementation mistakes that were present in the build scenarios virtually disappeared in the buy scenarios
- 60% of identity decision-makers were C-level executives (CxOs), followed by security architects, enterprise architects, and engineers
- Respondents said the most challenging teams to work with on identity projects were security and/or compliance; development, security, and operations (DevSecOps); and product, in that order
- Survey respondents highlighted the importance of the decision-maker in bringing together various teams, by understanding technical problems and removing barriers

Introduction

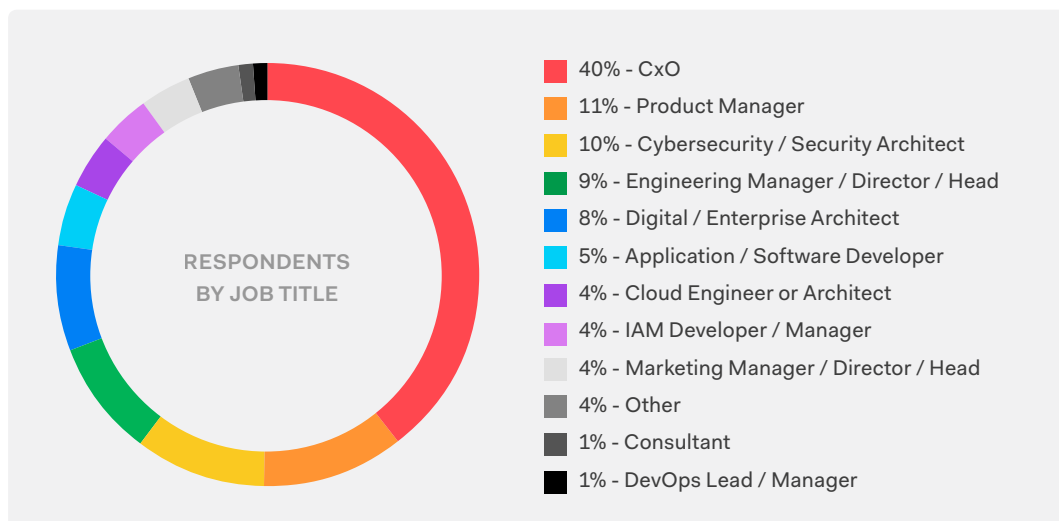
Peer feedback is essential in deciding on vendors and seeking advice on technology problems. Decision-makers responsible for an identity implementation across an app development team can use peer feedback to learn about—and avoid—others' mistakes.

[Expert advice](#) is great, but sometimes the most practical advice comes from those who are trying to accomplish the same goals as you are, and who may have learned from mistakes the experts hadn't even thought about.

This survey asked your peers about the mistakes they made and how they worked with other teams on previous identity projects, both when they bought and when they built. A successful identity project is never achieved in a vacuum, so we also asked about the mistakes they made in the architecture surrounding their identity implementations.

Survey participants and their identity experience










- Just over 60% of the respondents were CxOs (chief technology officers, chief data officers, chief information security officers, and chief information officers), people in security roles, and product managers:



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- 42% of respondents identified themselves as an identity decision-maker
- Of the 80 total respondents, most were from the Americas (63%) or the Europe, Middle East, and Africa region (35%)
- Most participants came from the IT and financial services industries:

RESPONDENTS BY JOB TITLE

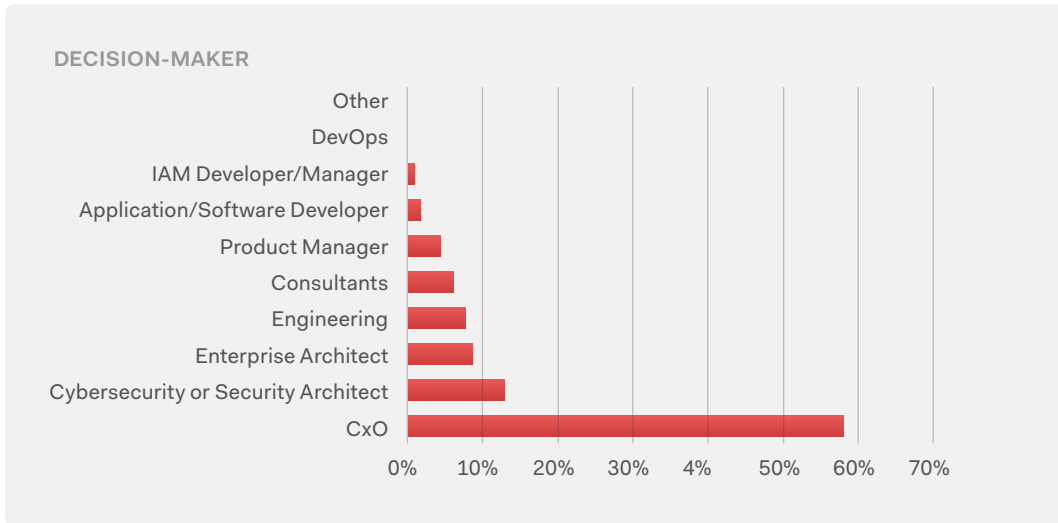
 30% I.T.	 6% Manufacturing
 16% Other	 3% Consulting
 15% Financial Services	 3% Media/Advertising/Marketing
 15% Retail/E-commerce	 1% Leisure & Hospitality
 11% Healthcare	

- Participants reported using a variety of identity vendors
- 50% were from companies with more than 3,000 employees, and 47% were from companies with fewer than 2,000 employees
- Only 10% took part in an identity project more than two years ago. The rest have taken part in an identity project within the past two years.
- Only 16% have been involved in only one identity project. The rest have taken part in more than one.

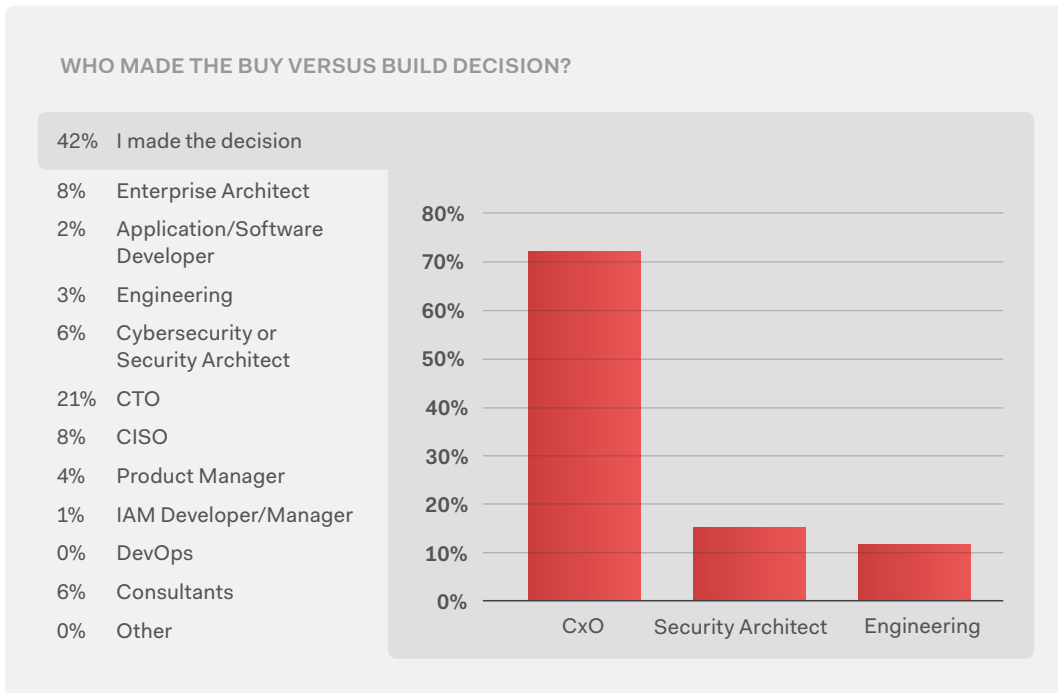
What is an identity team and who are the identity decision-makers?

Sixty percent of the self-identified and reported identity decision-makers for the identity projects in this survey were CxOs, followed by cybersecurity or security architects, enterprise architects, and engineers.

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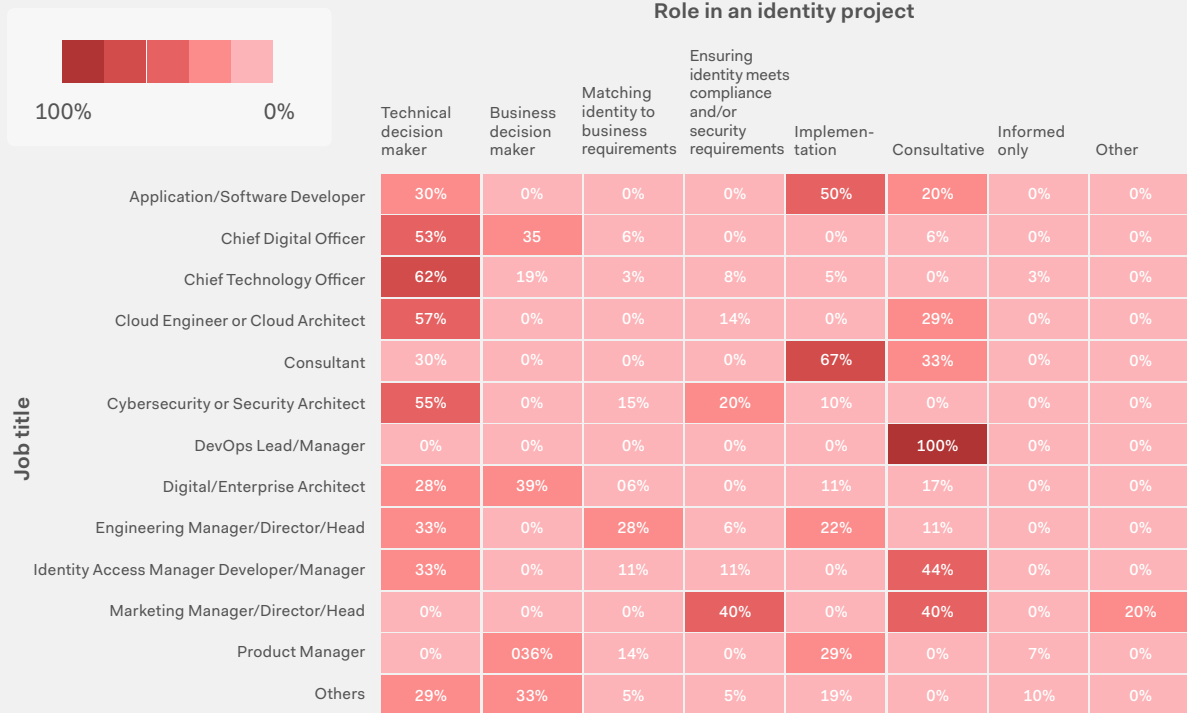
Forty-two percent of survey respondents identified themselves as decision-makers. Of those 42% self-identified decision-makers, 72% were CxOs.



Chief technology officers self-identified as a technical decision-maker 62% of the time and a business decision-maker 19% of the time. Cybersecurity and security architects self-identified as a technical decision-maker 55% of the time. Does this mean they were doing the actual implementation? In the security architects' case yes, but generally the developers also identified the most with that task.

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HOW DID DIFFERENT JOB TITLES DETERMINE THE ROLE IN AN IDENTITY PROJECT?



All in all, the survey respondents highlighted the importance of the decision-maker bringing together various teams, by understanding technical problems and removing barriers. Here's what some had to say:

- “The CTO was the best at bringing the project together from all areas (security, development, requirements, and operations). The project would have taken much longer without the CTO involvement.”
- “[The CTO] was able to quickly dissect the problem and define workarounds to the issues effectively.”
- “[The CTO was supportive with] good articulation of the architecture and the implications of solutions on product.”

The teams working on identity projects

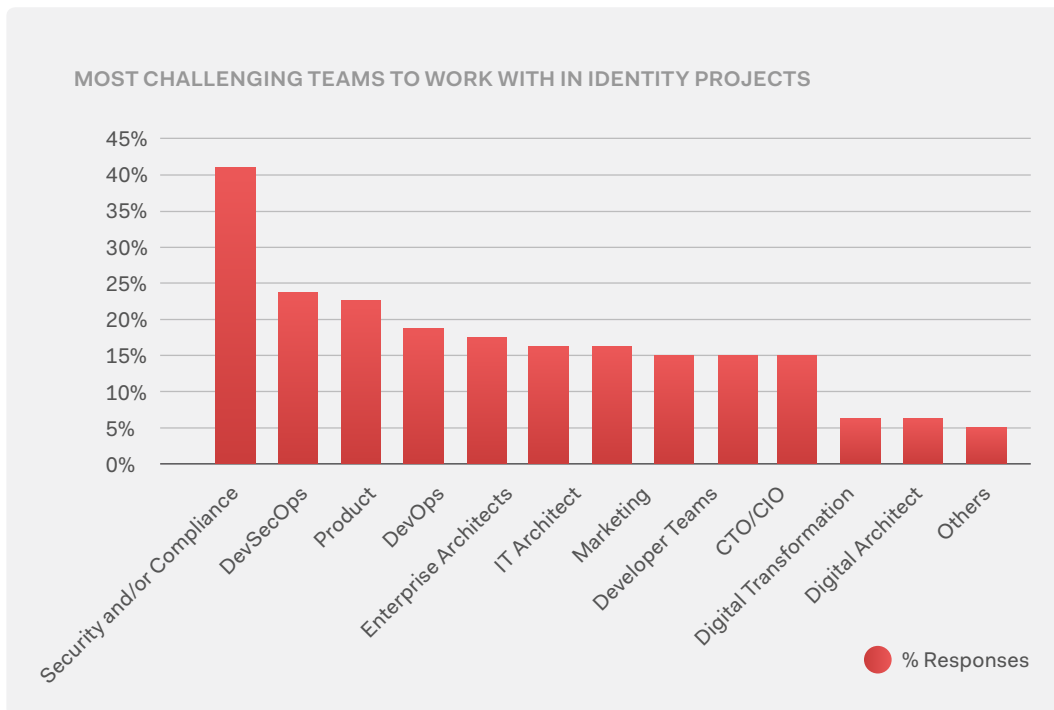
So who are these teams working on identity? This survey points to a varied set of roles. The identity decision-maker must balance the different visions on the team about what the identity project should look like. The respondents described multiple teams with strong visions for the identity needs in the organization:

- “Marketing has the customer and/or client in mind and thinks in terms of usability and ease of use to drive larger business objectives.”
- “[The product team was] interested in allowing future implementations and new features involving credentials management and single sign-on (SSO).”
- “[DevSecOps knows that] automation of deployment of the identity solution is a key aspect to a successful implementation.”
- “[The CTO] wants to make sure we do not add technical debt and systems that will require ongoing maintenance, enhancements, and support.”
- “[DevOps] always push for standards-based systems.”
- “[Enterprise architects] are a younger bunch with a variety of backgrounds, very Agile-centric, and had seen the need for a change based on our expanding environment.”
- “It was via security initiatives that we undertook this project, so we looked to them for significant guidance, and they were up to the task and had done a lot of their own research/prep.”

The most challenging teams

The decision-maker should also be aware of the most challenging teams to work with in identity projects. In this study, the **most challenging teams** were the Security teams, DevSecOps, and Product - in that order. The top cited reasons for these challenges included stringent requirements that were technically difficult to implement, and [balancing user experience needs](#).

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So to whom can decision-makers look for help and support? Survey responses suggest that decision-makers can find help across an entire team:

- **Developers:** “They had the best view on new developments in the identity field in regards to new standards [and] existing open-source tools.”
- **Enterprise architects:**
 - “[They have] knowledge of existing systems and how they play together.”
 - “The degree of integration requires a strong view of our overall IT architecture.”
- **Partners and consultants:** “[Their] broad experience in terms of industries, as well as having coached other large companies through the same transitions, was invaluable.”
- **Security and/or compliance:**
 - “This team was able to craft solutions which not only met requirements, they also were able to build appropriate compliance and support processes into the system.”
 - “The security officer was much in favor of better integrated identity management solutions, due to better role management, centralized control.”

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- **DevSecOps:**
 - “[They have] applied Agile to handle changing priorities over the life of the project.”
 - “DevOps see the need and want the tech.”
- **Marketing:** “[They] were cheerleaders for us, understood challenges and issues, and were supportive.”

Is there a ‘buy versus build learning curve’ for identity?

In general, most survey participants—whether they are decision-makers or not—preferred to [buy versus build](#).

70%

of participants reported a decision to buy from a vendor versus build for their identity needs across all their identity projects.

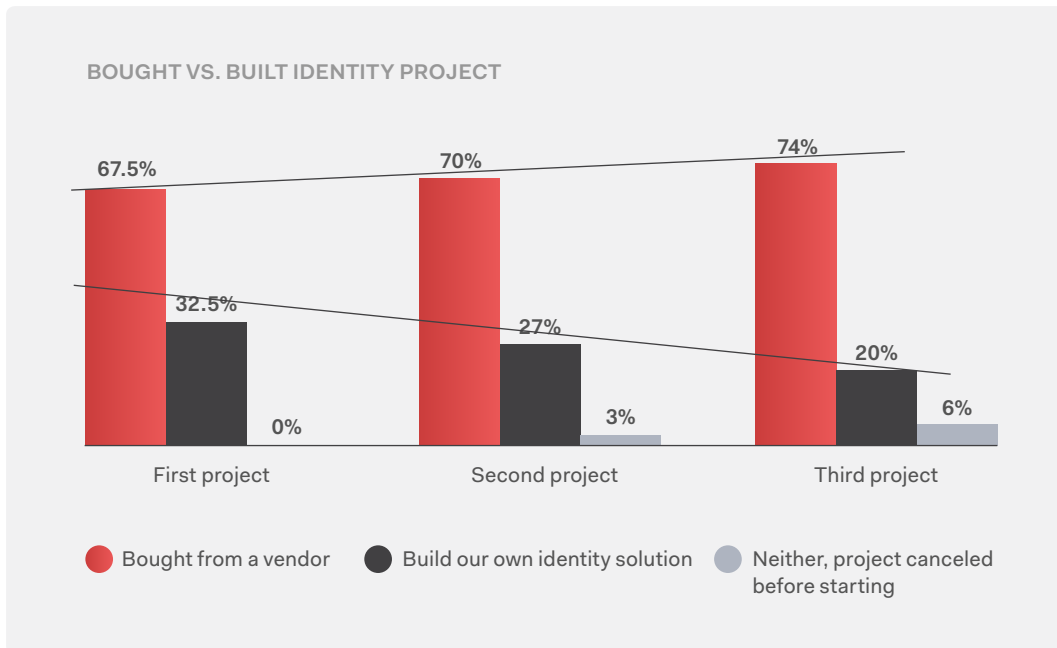
FOR FUTURE IDENTITY PROJECTS

58/80 (73%) prefer only to buy

8/80 (10%) prefer to only build

72/80 (90%!) prefer some level of buy

The survey showed a slight but noticeable effect that the more identity projects in which respondents participated, the more subsequent projects involved buying from a vendor. Conversely, the more identity projects in which respondents participated, the fewer subsequent projects involved building, a correlation that cannot be fully accounted for by the increased number of projects that were canceled.

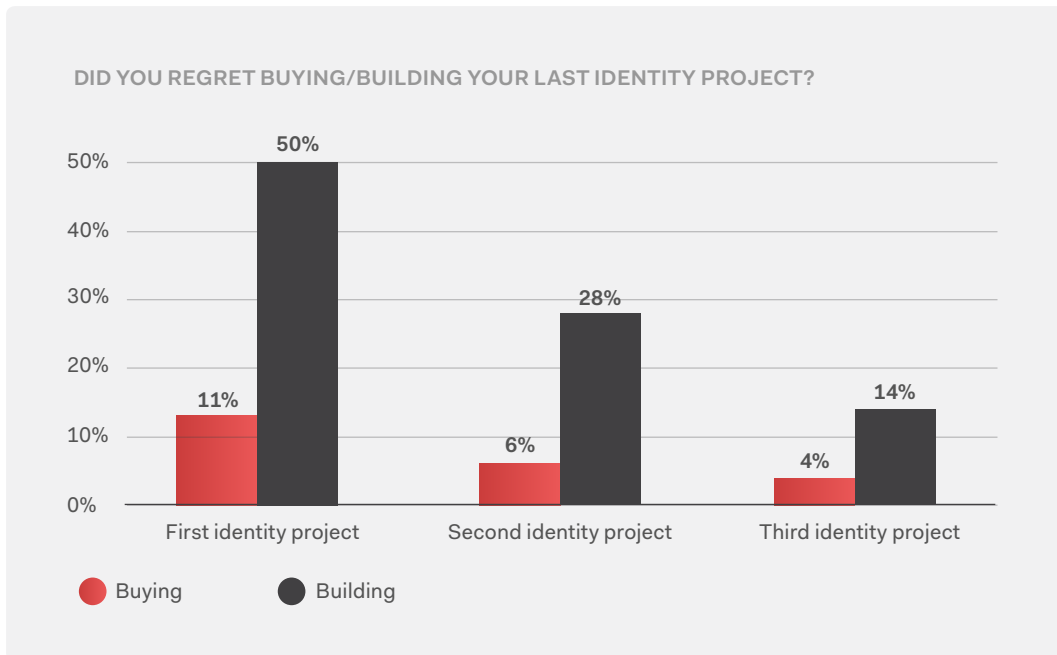


This seems to suggest a learning curve in which people learn lessons that encourage them to buy instead of build for their next identity project. But the results are slight and would require more testing to confirm validity and statistical significance.

When we asked respondents whether they regretted their decision to buy or build their identity project, a similar pattern emerged. For their first project, 11% said they regretted buying rather than building. By the third project, only 4% said they regretted buying.

That could be misleading, though, because regret generally tapers off for both building and buying as the respondent completes more projects. The amount of that regret also tapers off over time, which we cannot explain the scope of this study.

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Fourteen of the 80 respondents (18%) said [the buy-versus-build decision depends](#) on factors such as [control, scope of the project and the project's end goals](#):

- “More control when building own solution. Quicker implementation with purchased.”
- “Depends on the objective. If skills are available internally, prefer to build own.”
- “Depending on the vendors' offerings, pricing, and availability, I may choose to go it alone”
- “Much of the tech is off-the-shelf. We need bespoke integrations, too, due to the complexity of our user relationships associated with a school.”
- “Depending on scope and complexity”
- “Due to most applications only ever using one or two [SSO] providers — [Google, Facebook, or LinkedIn](#), usually—then for short-lived projects such as marketing campaign apps or early-stage prototypes, creating a direct integration with the SSO provider is easier. However, for long-term scaled applications, having a vendor that allows for scaling and custom integrations, such as different versions of an LDAP service, etc., then buying is key due to engineering time, etc., needed.”

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- “Build [takes] more time but can provide the needed flexibility to provide better end-user customization needed in some large enterprises. Buy can be the solution when you can start fresh and not be heavily customized.”
- “We have different users. [For our] corporate users, I would buy. For some of the apps we build for our customers, functionality and cost would drive us to build.”
- [“Build to customize and avoid extra cost. Buy because of speed and developer experience.”](#)

Make the right decision for your organization

The top reasons that respondents cited for choosing to buy were:

- Identity takes time away from developing our unique value proposition
- It's too easy to make security errors when building on your own
- We couldn't maintain what we built, or what we built was breaking

The top reasons cited for choosing to build:

- [No vendor could provide what we needed](#)
- We prefer not to outsource something as critical as identity

Other responses to keep in mind

Respondents were more likely to regret buying when they had bought the solution two years or so ago. That could indicate an improvement in the identity solutions themselves in the past two years or a change in mindset around identity over time.

Respondents who participated in three or more identity projects were more likely than other respondents to cite one of the following reasons for buying:

- It's too easy to make security errors when building on your own
- We couldn't maintain what we built, or what we built was breaking

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Perhaps doing multiple projects allowed these respondents to learn hard lessons about real identity costs associated with maintaining a build-your-own solution or the difficulty of the security element of building identity.

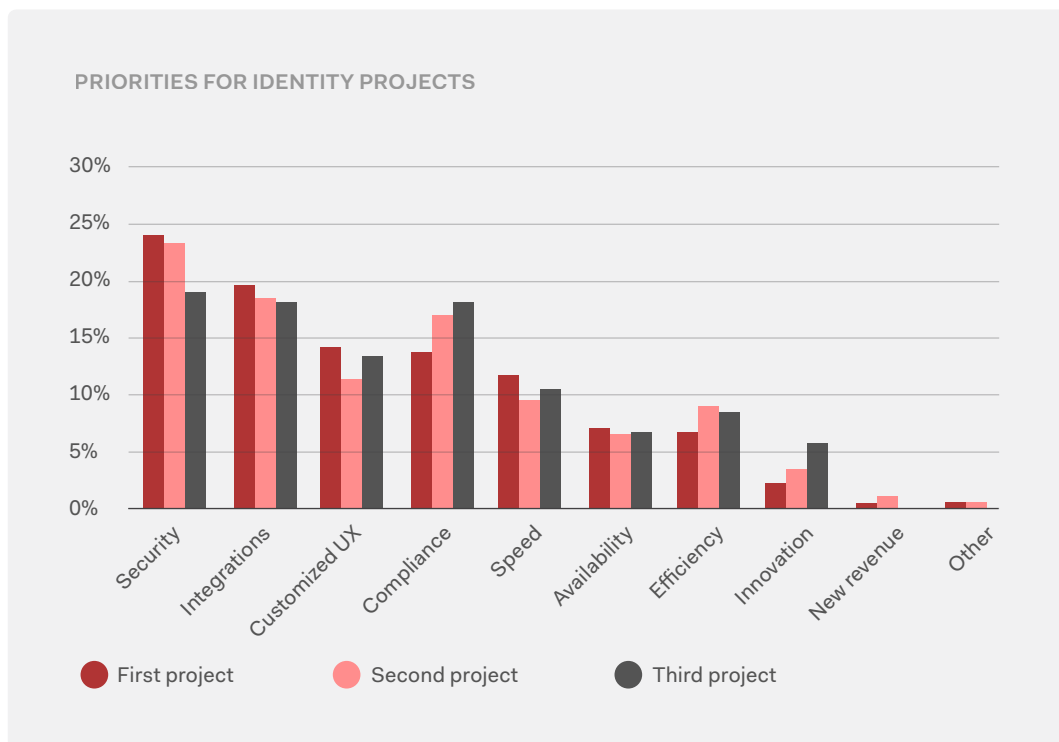
Those who regretted building were more apt to say they wanted to buy in the future because:

- Identity takes time away from developing our unique value proposition

Getting it right: The mistakes

Identity decision-makers, as self-identified technical decision-makers who remove barriers, define architectural workarounds, and understand the associated product implications, can speed up their own learning by seeing the mistakes others have made in their own projects.

The respondents in this survey generally prioritized security, integrations and compliance, in that order, across all the identity projects. If those are important priorities for you as well, read on.



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Mistakes to learn from in build scenarios

The most commonly cited mistakes in build scenarios had to do with **underestimating scope, timing, resources required, and complexity.**

“The biggest technical mistake was underestimating how much time and effort it would take to develop a secure and robust [identity and access management] solution. It simply took up way too much time to ensure we were secure enough and could integrate with other identity providers.”

The second most commonly cited mistakes in build scenarios involved **designing, planning, and testing.**

- “Not making a 100% complete list of regulatory and industry (healthcare) constraints applicable”
 - “Ignoring legacy systems that would be part of a larger implementation plan”
 - Not having a “clear map of internal services/applications and dependencies”
 - “Incomplete assessment of infrastructure components”
-

Other mistakes in build scenarios

- “Not including members of the security team from the beginning of the project”
 - “Business rules and managing want versus need”
 - “We relied entirely on in-house skills, which proved to be lacking in many areas”
 - “Not bringing in outside expertise upfront”
 - “Project management was more important than initially thought due to so many groups being involved”
 - “Not thinking from a scalable platform perspective. The identity solution was put in place to meet compliance.”
-

Interestingly, **user experience was not mentioned at all** as a challenge in build scenarios

Mistakes to learn from in buy scenarios

The most commonly cited mistakes in buy scenarios had to do with **integration of the identity solution to apps as well as to other parts of the architecture** surrounding the solution.

- Underestimating the time required for integrations or “not understanding the time/cost of achieving integrations”
- [“Integration to custom-built solutions has been challenging”](#)
- Interfaces with other systems, such as customer service solutions
- Integration with cloud and on-premises platforms
- “Mapping integration points from another identity provider”

The second most commonly cited mistakes in buy scenarios involved **vendor business issues**

- Licensing: “It was not really built for a consumer application. It got expensive real fast and toiled away money that was needed for other services”
- “Not considering all the modules and extra features required to be purchased”
- Problems with the vendor’s roadmap direction
- Willingness and ability to customize
- Tech support
- Outages
- Feature options
- Not based on standards

Other mistakes in the buy scenario:

- Not taking into account that “ways of authenticating users changes by location”
- “Separating Identity and directory functionality led to higher admin workload”

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- “Separate inside and outside (DMZ) clusters of servers were originally planned. This was wasteful and introduced unnecessary complexity.”
 - “Mistakes were made in the first design on an architectural level where 2x the systems were planned than was actually necessary”
 - “Bad maintenance of identity source (LDAP)”
-

Other elements you are deciding on with buy versus build

- **Skill, roles, and resources** were much less of a problem in buy scenarios versus build, and the problems were of a different nature. In build scenarios, the primary issue was internal skills. In buy scenarios, this still mattered, but there was also an issue of external consulting resources—for example, having to rely too strongly on external expertise to get the solution running. As one respondent expressed it: “Over-reliance on consultants to do the heavy lifting.”
- **Poor execution and implementation mistakes** that were present in the build scenarios virtually disappeared in the buy scenarios. Examples of these implementation mistakes include:
 - “Rushed it into place, so there were errors and it was brittle”
 - “Building insufficiently secure encryption”
 - “Flexible account recovery options were not engineered in advance, causing great trouble once the applications were running in production”
- **Scope estimation** was less of a problem in buy scenarios, representing only 7% of mistake mentions compared with 20% in build scenarios.

Not surprisingly, failing to select “a vendor that can adjust to future needs” was a mistake mentioned in the buy mistakes section only.

Mistakes to learn from in the architecture surrounding identity

The most commonly cited mistakes in terms of the architecture surrounding the identity solutions had to do with [designing, planning and testing](#).

- Not properly assessing the current (and sometimes inherited) environment
 - “More research into current estate” was needed
 - “Did not do an investigation to understand the current architecture”
- Considering identity factors like SSO, multi-factor authentication and social logins too late versus earlier on in development
- Not taking the time to fully understand the identity solution and map out objectives
- Starting too big versus too small and then scaling. Also not testing small bits and then scaling after successful tests.
 - “Started big and not small, leading to high invest with low measurable outcome”
 - “More pilot testing and proof of concept was needed”

Mistakes mentioned in the **architecture section exclusively**

- Resiliency, delivery model, microservices, and continuous delivery models
 - “Was not micro-services based as we needed it to be”
- Overall platform standardization
 - “Standardization of platform to meet needs”
 - “Building on older open source technologies rather than newer ones like OAuth.”

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- Storage of user names and passwords, other data issues
 - “Using unoptimized datastore for back end”
 - “Master data maintenance ahead of the project”
 - Cloud versus on-premises considerations
-

Other architecture mistakes

- Integrations: “Dependencies for integrations were not clearly understood, leading to the need to make significant [operating system] and software platform upgrades”
 - [“Scalability when you move to B2C scenarios”](#)
 - “Better to build an architecture that can cycle/ experiment with various identity vendors versus beholden to only one”
 - “Security configuration, specifically the need to allow traffic to pass between network segments”
 - “Wrong process sequences for user experience”
-

Conclusion

Identity decision-makers play an important, cross-functional role in projects involving a technology that has implications across an organization.

Any technical decision comes with good and bad experiences, and possibly even—as one respondent put it—“scar tissue.” Understanding others’ experiences is the quickest way to shorten the learning process and come to your own conclusions, perhaps while avoiding some of that scar tissue yourself.

Regardless of whether the decision is buy or build, given the weight of responsibility on the shoulders of identity decision-makers, talking to a vendor like Auth0 can provide a realistic view of [a buy scenario with options for customization.](#)