All together now.

Free from fragmentation

Spring 2023
Don’t just hear from industry leaders, learn from them. Join us and our episode guests as we discuss some of the struggles and successes that come along with solving complex business challenges.

Listen now!
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Doesn’t work feel harder than ever?

We’ve seen teams scattered all over the world, economic pressures, continued supply chain shortages - all forcing us to try and do more with less. This is weighing on us - and it’s really hard and really complex.

Think about what makes your work hard - it’s the big, time-sensitive projects, it’s teams across locations and out in the field, it’s your key materials all over the place, and data stuck in systems where you can’t access it.

We hear this all the time. In fact, the Wall Street Journal recently shared research conducted over 30 years that showed that 99% of megaprojects - buildings and bridges and large data centers - fail in some way. Further, less than half come in on budget, and only 8.5% come in on time and on budget.

So what’s behind this trend?

Businesses today have access to more data than ever before. There’s data from digital channels, connected devices, and physical assets. And storing and analyzing this vast amount of information is getting easier and cheaper.

But here’s the thing - even though we have all this amazing data at our fingertips, it often lives in silos. Most businesses still don’t know how to use that data effectively, because there is no connection to it. Our recent research at Quickbase found that teams use an average of 7 different tools to do work. So, it’s no surprise that most businesses today are disconnected and highly fragmented. This makes collaboration at scale nearly impossible.

And unfortunately, the solutions available in the market today don’t quite get the job done. Spreadsheets are a nightmare. Collaborative Work Management tools solve some of this fragmentation, but they’re not designed for complexity. And developer platforms take specialized skillsets and way too long to implement.

Quickbase bridges that gap for a lot of our customers. It is robust enough for complexity but flexible enough to help them move quickly at scale. Our goal is to help you see, connect and control your most complex projects. And ultimately, as you’ll find throughout this magazine, our mission is to make complex work simple.
Community Perspectives

“Projects are more complex because of challenges in obtaining and analyzing multiple data sources, limited time and resources.”

Brian Hinshaw, Principal Business Manager at AT&T on the cause of work complexity today

“Once data sources are brought together, data can be sliced and diced in new ways. As we are looking at data in new ways, the team begins formulating new questions which lead to new requirements for how to look at the data.”

Adam Keever, Advanced Quality/Warranty Engineer at Magna on overcoming complexity and innovating through data

“We now have greater expectations to have data more available for reporting purposes across all the platforms we use. Companies we work with have changed a lot of their processes since COVID hit, so we’ve had to shift over to even more integrations to ensure the teams have the data they need to keep above the heavy volume of new work flowing into our door.”

Mark Lind, Systems Analyst, CCI Systems, Inc. on how expectations for data availability have shifted

“You need to work more collaboratively. You must build relationships. It’s an action regardless of any tool. Projects are different now. There’s always a remote component, and it’s important to focus on the business value.”

Deb Cote, Sr. Director, Strategic Planning & Performance at Dana-Farber Cancer Institute on tackling complex projects with collaboration
As the Senior Vice President and Global Head of Digital Engineering at Cognizant, Andres Angelani is a recognized leader in digital transformation strategy, custom software development, and agile practices. He joined Nick LaFleur on Quickbase’s Age of Agility podcast to share his insights on how the new digital era of companies affects scaling, user experience, and employee work culture. Here are five highlights of the conversation.

Q. You’ve said, “business technology is primed for a paradigm shift.” That’s a pretty big statement. Could you unpack that for me?

Sure. It’s not just about the technology for the business. Every industry is moving into this era where software powers a lot of how they engage with clients and how they gain efficiencies.

Initially, software was viewed as more of an industrial scaling thing. But then as software became more intelligent and engaging from access, mobility, and user interface, we’re thinking about software as being impactful and becoming the business or an essential component of the business itself.

It’s disrupting traditional industries, like financial services, insurance, healthcare, which have normally been very slowed by compliance and regulation. They’re actually jumping on the transformation wagon, because they feel that they see that it as a competitive differentiation for them, if they can actually leverage the power of software to connect and to engage. So, it’s more about global change into this form of innovation that’s powered by software.

It’s generalized and sort of accelerated the trends that we’ve seen kind of slowly penetrating now. It’s more than obvious that that software is here to help us define the new future, right? As we say, digital transformation is not really a segment or an add on anymore. It’s just becoming an essential piece of business strategy. So, that’s what I meant with kind of primed for a paradigm shift.

Q. You mentioned the pandemic and work-from-home culture shift as fueling newfound value in digital transformation. Are there other changes that have primed this shift in paradigm?

Yeah, with this acceleration, the cultures of the companies were also affected. It’s not just an experience to reach out to their consumer base, but also to engage their employee base. You need to make sure that they stay, and then they are motivated. So, a lot of companies are thinking about a different way of working where the software is more of an enabler and helps engage better. Not only just filling the gap, but also kind of defining a new sort of more hybrid experience.
A lot of companies recognize the need to make this change and want to move fast. How do you see companies doing that? Could you unpack that for me?

The way that technology companies are viewing it right now is a little bit restrictive, because the pandemic kind of overvalued them. So now they’re going through an adjustment phase. This is why you see a lot of layoffs at the big names, etcetera. But I don’t think that this is going to be a permanent situation.

The reality is that the people that make technology happen and the ones that work on software are such a small global population. At the end of the day, long term it’s supply-demand, right. So, the gap is tremendously large, and its enlarging continues. So, I think what we’re living in right now is kind of a blip.

Given the tremendous expansion and multiples that these companies enjoyed, during a few years, there’s also expectations changing between clients and partners because the technology production is embedded in everything. A company itself cannot just fulfill absolutely everything; they need to partner differently. So, a lot of companies were doing sort of outsourcing, like ‘I’m gonna outsource the stuff that I’m not interested in, or that I want to do at a lower cost.’ Well, that mindset is changing as well. Everything you do affects your final products for your clients and your employees. So, you want you want really focus on quality and experience overall. All these kinds of more transactional relationships are becoming more partner-like.

You talk a lot about the concept of speed and velocity in business. Tell us a little about that.

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What do you suggest to anyone looking to approach their work with more of a velocity mindset?

There has to be a kind of openness between the team to engage and treat partners in a different way. It’s very important to understand that lots of companies don’t have native capabilities. So, it’s important to cross pollinate across the ecosystem of partners and define a sort of a network of affinity—people that really know a native in certain areas. This could be specific product engineering, software, could be AI, or some particular technologies. It could be products that can be an accessory to their IP. Very importantly, how to, in an agile way, engage all these different components, as if they weren’t part of the same company.

So how to build that type of community, right? That is very important, because it creates a lot of speed around how you get things done in a way that you don’t have to reinvent 10 different wheels. So you go and you work with it. But that is easier said than done.

For the full conversation, check out the podcast:
Throughout the years of focus on digital transformation, finding better ways to connect information, processes, and people has been top of mind. KPMG, for example, found in early 2020 that 79% of CEOs say they are personally responsible for overseeing cross-functional alignment in a way their competitors were not. Priorities for those leaders included taking a more active lead in technology strategy and increasing automation.

That report was entitled The Connected Enterprise - when the reality is, today, work is more disconnected than ever. Quickbase’s own recent fragmentation study found that almost 94% of respondent organizations are at either moderate or high risk of experiencing the challenges of fragmentation. We have moved past the connected enterprise - and into the challenges of the post-connected enterprise. This is a time marked by processes that are completely disconnected from each other.

So how did we get here? And how can we bite back at the connections that we somehow moved past?
Too small an approach

Part of the problem is that the existing ways that people seek to solve this challenge aren’t cutting it. Too often, organizations view collaboration and connection as a problem solved on the individual and team level. While collaborative work management capabilities like task tracking and individual project management are important to getting work done, they can fall short of the scale of the problem. Similarly, when organizations solve projects with bespoke tools to manage individual processes, they can be creating even more data silos and in fact increasing fragmentation when they sought out to make work easier. And when teams turn to manual tools like Excel, the problem only becomes bigger.

This is what happens with more tools without anything to connect them. “You have more software to attack your challenges, and yet more problems as a result when that software lacks the flexibility to build, strong integrations, and the tight controls you need,” said Ryan Duguid, VP of Product Strategy at Quickbase.

With a continually growing tech stack and nothing to connect all of it, the small challenges are solved while the big ones remain. As a result, work suffers. More than 53% of respondents to our quiz are held up more than once a week by fragmented data, communication, and workflows. And we have to fill in those gaps and challenges with manual work - 70% of respondents said that they enter the same data into multiple places.

This is the flaw in a patchwork approach to solving business problems. Without the right capabilities to unify all of your data and systems, your people will have no idea where to turn for the information they need to get their jobs done and your most important projects - the ones that take the most coordination and communication - will be stuck in the mud. Your work will remain fragmented and your teams will remain frustrated.

Critical connections

There is, however, a better way to create the cohesion that is missing. It starts with connection and automation. Instead of prioritizing point solutions, you should be looking to take a more holistic approach to solving fragmentation. Your organization has people doing tons of work every day - the right approach to collaboration and connection unites all of the information and systems that come from that work and makes sure everything is accurate and actionable.

More visibility by committing to a single source of truth will shine a light on the ways your work is disconnected - and show you where you can cut out duplicate work. Connected technology can build on this central source of truth by integrating platforms. The right collaboration tool, one that can be customized and layered with no-code, makes sure that there’s no need to ‘rip and replace’ software just to reduce fragmentation. Better automation, taken on by less than 40% of organizations according to Foundry, can be a major force to solve fragmentation as well. If technology leaders take a considered, organization-wide approach to this, you will remove the phrase “entered manually” from your vocabulary.

Learn from how Henley-Valvoline did this. In order to effectively expand their real estate portfolio 3 times in 5 years, they need to collaborate across multiple teams and processes. Construction progress, site selection, and portfolio management are all happening in concert, and information matches among coordinated handoffs. This comes through visibility, connection, and automation - as we like to say, they can see, connect, and control all of their critical processes. Challenges like this mean people need the right information at the right time - and the post-connected enterprise doesn’t bring this. While work feels more disconnected than ever, taking the right approach will bring us to the connected enterprise that we have all been seeking.
Like many things today, work just feels more difficult than it used to be. The promise of technology and innovation has given way to bloated tech stacks.

An explosion of new software solutions, ushered in by digital transformation efforts over the past 5-10 years, has produced hyper fragmentation of data and information inside many organizations. This has created massive inefficiency, leading to costly project delays, bad decision making, poor cross-team collaboration, and more. It has made companies rigid and incapable of responding quickly to macroeconomic shifts. Companies are floundering, trying to figure out how to shore up their operations just to survive the turbulent years ahead. In response, they continue to adopt more tech solutions, searching desperately for a silver bullet, all the while fragmenting their organization even more.

In an effort to understand how businesses are operating today and the pain they feel, we took to the market and conducted a study. Over 600 respondents answered a few simple questions in order to find out—How fragmented is your business data? The results reflected what we all feel. In the pursuit for digital transformation, everyone got lost in the hype.

To address fragmentation though, you must first recognize where we are and how we got here.
How many systems do you rely on for information to get your work done each week?

At the heart of how fragmentation has run rampant is the volume of software platforms that we all rely on to work each day. Tools meant to improve our productivity and streamline work did so without making one another better. With each new problem needing to be addressed, a new software solution entered the fray. Each one of these creates its own set of data or has its own unique process tied to it.

Bouncing between more than a couple of applications makes many tasks convoluted and difficult. In fact, needing to juggle more than 6 applications puts businesses at a major risk for experiencing productivity problems due to information sprawl. Our study found that respondents rely on an average of 6.9 platforms to get work done each week.

This means that the average person has a tech stack that is too sprawling to be able to work effectively and rise to the level of productivity that today’s work environment demands. It’s not merely the number of tools that companies rely on that is overwhelming. The platforms relied on varied widely among the respondent pool. A total of 77 different software applications were listed by our group of respondents.

Of these 77 platforms, two listed more than any others have been hallmarks of the business tech toolkit for over two decades – Excel (78%) and Outlook (65%). Beyond these two programs, an instant communications platform was selected by nearly ¾ of respondents. MS Teams was reported on 47% of lists and Slack appeared on 23%.

After email, IM, and Excel, the next most common tools businesses rely on fell into three general categories: file sharing, task management, and CRM or accounting tools.

Cloud file sharing has become among the most important platforms businesses need in the hybrid work environment. This was borne out in our study results as OneDrive (43%), SharePoint (43%), Google Drive (40%), and Box (13%) were reported very commonly.

The most commonly reported accounting and CRM tools included QuickBooks (19%), Salesforce (17%), Oracle (13%), and SAP (12%).

This most common set of applications encompasses 18 selections, which leaves another 59 applications listed by our study respondents. Therein lies the problem. Each of these platforms is necessary for business operations to happen, but each one has its
What is the main struggle you are dealing with at your job?

How each person in an organization feels the strain of the current state of work can vary. External factors like inflation, workforce shortages, and supply chain disruptions create chaos more prominently for some businesses and professionals. Even if you don’t feel that pressure directly though, the challenges resulting from poor internal systems and fragmented technology can present themselves very similarly. With that in mind, we asked our participants what they struggle with most at work.

A “productivity crisis” is often cited as a present challenge for many organizations. Almost ¼ of respondents agree and feel that is the most significant struggle they contend with. The next most prevalent struggle is a three-way tie between collaboration, efficiency, and trust. Just behind those three is speed.

Each of these struggles was meant to be solved by new technology. By blindly adopting new software though, these problems have been exacerbated for many people. Nearly all organizations employ a file sharing platform and communications software in their business, but information sharing and collaboration is still a challenge because processes may not be standard. Confidence in obtaining accurate information presents a challenge as multiple platforms for similar functions means never being sure whether information you’re accessing is the most up-to-date available. The presence of a massive set of platforms has paralyzed productivity as teams are wasting time managing their tools instead of managing their work.

The top 5 answers were:

- Getting work done faster or delivering projects faster: 10%
- Collaborating + sharing information with other teams: 12%
- Driving greater efficiency - doing more with less: 12%
- Feeling confident the information you have is accurate: 12%
- Being more productive or getting more done: 23%
How often are you or your organization affected by project delays, miscommunication, or duplicated work?

Fragmented data, communication, and workflows cut at the heart of all business functions. A whopping 57% of respondents to our study reported being held up by these issues more than once a week. A quarter of people experience these issues daily!

Finding that progress is being held up by internal confusion more than occasionally is a clear sign that fragmentation is crushing the productivity of your organization.

This result is particularly concerning in light of the rapid adoption of digital tools for business operations. Chances are if your business uses any brand of project management or productivity tool, they tout the ability to prevent delays and duplicated work. Unfortunately, too much software has created an environment where teams are either missing hand-offs or ignoring them. A lack of visibility is holding up progress for a majority of businesses, which is ultimately affecting the bottom line.

Do you need to put the same data into different systems?

One of the most straightforward signs that the way you work is not really working is the frustrating task of entering the exact same piece of data in multiple places for different people. A staggering 68% of respondents to our fragmentation study find themselves entering duplicated data in multiple places.

This can be the result of a few different flavors of well-intentioned but poorly executed software adoption. From a lack of connection between systems to badly designed workflows to limited visibility for team members, manual re-entry of repeated data is a huge waste.

If you find yourself among that majority, it means you’re not just wasting time by duplicating efforts, but you’re also creating opportunities for typos and other errors to become larger issues for your organization. If insight is needed across teams, but those teams don’t have the same visibility without duplicative action, you might be fragmented.
So, you get it. The problem that this explosion of business software has created for most organizations is very clear. Finding the solution may feel a little murky though. It seems counter-intuitive to say that more software is the route to solving for too much software. However, building more productive processes isn’t just about the software you use. It’s about focusing on how that software operates with how your business gets work done.

Prioritize Visibility
With increasing fragmentation, it is unclear who has access to which systems, how key processes are run and managed, and how teams can best do their work. To build an accurate view into how you work and your key projects, put visibility at the core of your strategy to minimize fragmentation. A major key to minimizing fragmentation is building and committing to a single source of truth for critical project information. That way, there is a trusted place for all information, and there is confidence that everyone can confidently know they have the most accurate data.

Build Connections
The fragmentation of systems doesn’t mean that data and process aren’t valuable. Each new software adopted over time intends to solve a problem, and chances are that they do! The problem is that fragmentation, by definition, is borne out of new software that lives on an island, siloed from your existing work. Building connections between your existing data and business systems is the next step you need to follow in order to overcome fragmentation.

Along with the explosion of new software, integrations between platforms have also boomed. While rigid systems have kept many workflows in the dark, a dedicated focus on connecting crucial data in a singular, easily accessible location is one of the most important steps you can take to keep fragmentation from derailing your business. Vet the capabilities of software in your tech stack with a focus on data integrations and dashboards.

Focusing on four key areas – visibility, connection, automation, and collaboration - can push back and halt the continued advances of hyper-fragmentation. Here’s how you can stop fragmentation from continuing to plague your people and reverse the tides.
Adopt Automation

The goal of any work management software is simple: make things easier. The single most effective way to reduce delays and make teams more productive is to automate tedious processes in your project workflows. It seems simple, but research from Foundry found that less than 40% of businesses automate project workflows. Buying new technology without a proper framework has forced organizations to spend hours mired in manual processes.

Adopting automation and building data connections go hand in hand, and the processes to achieve it are very similar. Establishing automated workflows takes a great deal of consideration and it is incumbent on technology leaders to understand how teams operate before setting forth the plan. Adopting automation is also an incredibly iterative process, so start by stacking easy wins like scheduling and task management. The adoption of customizable collaborative software is helpful in accelerating the steps from manual to fully automated.

Facilitate Collaboration

Getting work done well requires collaboration and coordination - across teams, across systems, and across organizations. This comes from better communication, which can be driven by standardizing processes and boosting the visibility teams have into each other’s work. Effective collaboration on a large-scale means uniting your key workflows and data to create seamless cross-team and cross-organization work.

Finding a Way Forward

Call it whatever you want: data silos, disconnected processes, disparate systems, whatever. Every one of these jargony terms boils down to the same problem—the way companies work is too fragmented and crushing their productivity. Even though less than a quarter of our respondent group reported experiencing work delays either rarely or never, there is hope.

Many companies have found ways to control fragmentation in their tech stack by prioritizing visibility, connection, automation, and collaboration. As a result of more organizations recognizing how their current technology setup is hampering their productivity, the broader productivity crisis is being exposed. Overcoming fragmentation means becoming flexible in the face of change, delivering projects on time and on budget, and reducing friction in managing your most complex work.
Addressing homelessness is a major priority for communities everywhere. Providing security through affordable housing for at-risk populations is paramount, especially in large cities like San Diego. Created in 1979, the San Diego Housing Commission (SDHC) performs three major program functions that create affordable housing opportunities:

- Federal rental housing assistance provider for more than 16,000 low-income households, annually;
- Partner to address homelessness, including Housing First, San Diego - SDHC’s landmark homelessness action plan; and
- Affordable housing developer, investor and lender—producing more than 23,000 affordable housing units currently in service through partnership developments and acquisitions.
Helping Those Experiencing Homelessness in San Diego

SDHC leaders Geoffrey Bartell, VP of IT, Annie Holder, Senior Analyst, and Deana Villanueva, VP, are committed to driving innovation and enabling timely solutions for those experiencing and at risk of experiencing homelessness in their community. The eighth-largest city in the country, San Diego is home to over 16,000 low-income households and countless others at risk of losing their housing. But the SDHC is committed to implementing innovative programs and housing opportunities for families and individuals in need.

Taking on such a complex problem requires coordination and insight. They analyze extensive datasets to identify housing needs for those experiencing homelessness and those who are at risk. They also handle large amounts of data to outsource appropriate services for those in need, including short-term housing, locating landlords with vacancies, and intensive assistance programs.

Each program that they offer requires its own dataset and also integrates with their partner programs and ERP systems. Before switching to Quickbase, the team used a combination of technology and spreadsheets. But disparate data caused bottlenecks with a direct impact on under-housed families.

The SDHC team needed a simple, intuitive solution that was easy to use, integrated with their existing systems, and eliminated the need for tedious data entry. To accomplish this, the SDHC group adopted Quickbase to build apps to track caseloads, manage funding sources, and provide real-time views of client records and households served. Innovation came through integrating their data sources into useful dashboards and streamlined processes.

With new technology operation in the fold, the SDHC created new processes for data collection and reporting, resulting in a 20% caseload reduction. And most importantly, the speed of their most critical work improved as they could get people into homes faster.
Since 2019, Chief Innovation Officer for the City of Paterson, New Jersey, Ed Boze has been working tirelessly to implement solutions to help his community overcome its challenges and reignite the spirit of prosperity and innovation it was once known for around the world.

A former high-achieving c-suite tech executive and founder, this current public servant has a tenacity for leveraging technology to improve public health, solve problems around how opioid addiction and treatment is handled in Paterson, and drive more cost-effective health operations for his community.

Uncovering New Insights in Public Health Datasets in Paterson, New Jersey

The city of Paterson, New Jersey is one of America’s most densely populated urban centers. With a population of 160,000 spread across just 8 square miles, Paterson is an urban center that once teemed with activity generating economic prosperity and security for working families. As one of America’s fastest growing economic centers during the 19th century, Paterson earned the nickname “Silk City” in reference to local silk production which made the city a household name in many parts of the world.

As the Chief Innovation Officer of Paterson, Ed Boze applied for and won the Bloomberg Global Mayors Challenge and one of 15 $1M grants. Ed’s proposal outlined RealFix, which breaks the hold of addiction, providing Appropriate Medication-Assisted-Treatment Anytime Anywhere (AMATAA) faster and easier than obtaining illicit opioids, in 90 minutes or less to be exact. Bloomberg recognized this as a solution that can scale to solve a nationwide problem, opioid addiction.

A complex problem requiring a unique solution

Getting life-saving medication to those who need it, when they need it, no matter what time of day is complex, requiring tight coordination across different people and systems. Paterson partnered with Quickbase to build a technology solution that demonstrates how RealFix can be taken from concept to reality and prove ROI to receive the grant.
“The City of Paterson is on the frontlines fighting the opioid epidemic in our country, developing innovative ways to provide life-saving treatments to their community,” said Ed Jennings, CEO of Quickbase. “Getting treatment to those who need it, whenever they need it is essential, and the model they’ve developed will be crucial to saving lives in their community and beyond. We’re proud to have played even a small role in helping them develop their approach and win this grant.”

Some of the biggest barriers for addicts getting the help they need are time constraints. Traditional medication-assisted treatment (MAT) helps prevent withdrawals in a medical setting, but can take days to get to those who need it. Consequently, only 1 in 500 in Paterson receive appropriate MAT, leaving the other 499 to not get treatment, or rely on illicit opioid dealers. This has helped fuel the nearly 1,700 overdoses the city sees annually.

To address this, the city developed a technology pilot with Quickbase to create a computer-managed dispatch system that addresses all aspects of prescribing Suboxone, including standing up and managing a network of call centers to support telehealth consultations, facilitating consultation between patient and provider, managing insurance information and ensuring the medication is routed to the correct pharmacy. The solution helps coordinate and connect all of the moving pieces in the process, like doctors writing prescriptions, pharmacies fulfilling orders and insurance companies covering costs.

“To deliver Suboxone in 90 minutes, we had to be very intentional and map out the project in great detail, and Quickbase is the perfect tool to manage the complex process,” said Boze.

To learn more about the work being done in Paterson, listen to Quickbase’s GovTech Talks podcast, where Ed Boze shares more about the grant and how his team implemented the RealFix program.

We’ve learned that the peak time for opioid overdose is between 4 p.m. and 11 p.m., but most treatment centers in our area close at 3 p.m. for various reasons. A solution that could deliver life-saving treatments to people with opioid addictions didn’t exist, and thanks to Quickbase, we were able to build it from scratch.

Ed Boze, Chief Innovation Officer for the City of Paterson
All together now: Free from fragmentation

Curbing Data Sprawl in Large, Complex Projects
Way back in 2016, the average enterprise-sized company managed over 347 Terabytes of data. It’s hard to picture how much information that is. For a little context, it would fill about 1.1 million volumes of the Encyclopedia Britannica.

Now imagine an operation with the scope of Boston’s Big Dig—a 25-year project to burrow 1.5 miles into the heart of the city. Hundreds of public and private organizations needed to record budgets and expenses, coordinate their workforce, draw and iterate plans, and send countless communications. Every action created more data. Each data set would be fragmented, duplicative, and quickly outdated, making it tricky to trust and impossible to track by everyone involved.

This out-of-control mess of digital information is called data sprawl. And it’s a particularly nasty problem for cross-organizational projects because not only is more data generated from large operations, it’s also heavily fragmented in completely disconnected systems.

But as new technology makes pitching more data on the pile easier, it also offers hope of controlling it. Directors that use the right tools to address sprawl will create an ecosystem of organized and trustworthy data that’s accessible by every organization involved. The earlier the better too or project leaders will have to dig themselves out of a Terabyte-sized hole later on.

**Fragmented data: The real cause of data sprawl**

Fractured, fragmented data is information that sits on siloed apps, servers, or laptops that’s hard to access and collate. The lack of visibility leads to duplication of records and effort, sending sprawl to unmanageable levels.

In an operation like the Big Dig, for example, several construction companies will work simultaneously in different locations and on different systems. Every day, each crew gathers data about things like progress and costs. They’ll store all that information on whichever platform their company has decided is best. Some will have a project management app, many keep tabs with a spreadsheet.

Project directors need the data these teams accrue to update reports and allocate budgets. Other teams need it to coordinate work crews so the electricians don’t show up before the structural engineers. But there’s no one place to get it, so everyone pulls the same data over and over, or manually ports and manipulates facts and figures from spreadsheets to create a usable output.

Pretty quickly, the same data lives in hundreds of locations and in various forms. All of it is updated at a different pace, leaving the real truth buried under a mound of ROT (redundant, obsolete, or trivial data). Now, the project director not only has to hunt down cost data from a dozen places, but they have to sleuth out which information is correct. What well-managed data looks like

The above scenario is common, but it’s not a foregone conclusion for large projects coordinated between many service providers. There is a world where trustworthy information flows freely between teams. And when we look at well-managed data in real-world examples, we see it shares a handful of common characteristics.

**Source-agnostic data collection**

It’s unrealistic to expect a hundred organizations to use the same financial, CMS, and project management software. So successfully stopping sprawl needs a centralized platform that can integrate with the systems everyone uses to gather data.
Kayak, the popular travel app, is a perfect case in point. The company is headquartered in Boston, but works with partners in Europe, China, and India on IT infrastructure projects.

It would be nearly impossible for the Boston team to update and exchange the single-user spreadsheets from each involved. So they used a no-code platform to create a centralized location that imports data from their partners. Now Kayak’s partners update in their native locations, and Kayak employees see it all in one place.

**Intentional governance**

Governance is the control of who can see, add, and use data. As more organizations join a project, there are more opportunities to create duplicate data and muddy the reporting waters with out-of-date information. Governance is how you keep that from happening—especially if you’ve enabled teams to build their own apps using no-code platforms.

Governance works best when it’s controllable at various levels. That means setting automated approvals not just by role, like admin vs. user, but by the data field or query. So as a project expands and hundreds of new people need access, no one is tasked with setting individual permissions.

The Micron Consumer Products Group had several data management jobs that no-code apps could solve quickly. But they also had to be aware of sensitive data that could be at risk when non-IT personnel created these solutions. So they built in governance guardrails that allowed for fast app development while keeping data safe.

**Discoverable and accessible**

Just as data collection needs to be source-agnostic, avoiding sprawl requires that data be easy to find and usable by everyone that needs it. That includes making it available on all the devices—both stationary and portable—typically used to access it. The alternative is repetitive requests for the same data that gets stored in many locations.

A single organization can handle this by storing data on an accessible cloud server. For multi-organization projects, it’ll require a central platform that “speaks” with the various systems of each team.

Boyett Construction—a specialty subcontractor with 100-plus jobs always on the go—does it. They custom-built their own no-code project management app, called BMS, which gathers information from vendors, financial partners, and field crews. The team then quickly designs custom reports and dashboards that collate and contextualize all that disparate data.

**Compliant**

Compliance is an essential concern for almost any organization that deals with data. Whether it’s HIPAA, GDPR, or CCPA, there is often a need to prove that sensitive information is handled properly. Data sprawl is a natural enemy of good compliance and makes reporting to compliance agencies a nightmare.

Centralizing data is a big leap towards curbing sprawl and being compliant. So is proper data organization and tagging.

For example, the Atlantic Research Group—a contract research organization—left behind the challenges of using spreadsheets and Google Docs to meet HIPAA requirements. Instead, the company created its own Clinical Trials Management System that keeps all the files they need to protect in one place that’s easily searched when HIPAA regulators come calling.

**Flexibly managed**

As a project increases in complexity and scope, so do its data management needs. What worked when three organizations collaborated around project design won’t be adequate when 50 teams are testing soil, gaining legal approvals, and building physical structures.

Wrangling data sprawl while working with a growing and changing list of subcontractors takes a lot of work. Canadian Solar Solutions Inc. found it impossible to do with an inflexible SharePoint instance locked behind a firewall. So they built a completely customized project management app. The flexible design of their no-code app lets them start with a few basic data sets, like key project dates, and add functionality over time as new vendors and partners require specific data.

**The impact of curbing data sprawl**

Well-structured, easily shareable data has profound impacts on a project. Decisions are better informed as leaders have easy access to contextualized, trustworthy information. Coordination improves since everyone is working off the same, up-to-date facts. There’s a sharp increase in productivity because people aren’t manually requesting details repeatedly. And without the exponential duplication of data left in many locations, data security increases while storage costs decrease.

There is a flexible, no-code solution that lets the largest, most complex projects curb data sprawl through customizable applications. Whether you’re organizing the deployment of a new state-wide health initiative or just digging a really big hole, we can show you how.
If you only add one event to your calendar this year, make it this one. This free virtual event is packed with thoughtful and engaging content to help you streamline your processes and increase your overall productivity in 2023.