# DIGITAL INNOVATION IN REMOTE DEVELOPMENT TEAMS

softserve

The new normal of distributed development teams is not that "new" anymore. During the last two years, remote work has become an integral part of what organizations usually see in resumes and how they structure their day-to-day operations.

However, sending employees home may not have a positive effect on organizational innovation and collaboration. In this white paper, we will examine how this can happen and ways that organizations can steady the ship to adapt to constant change while sustaining innovation remotely.
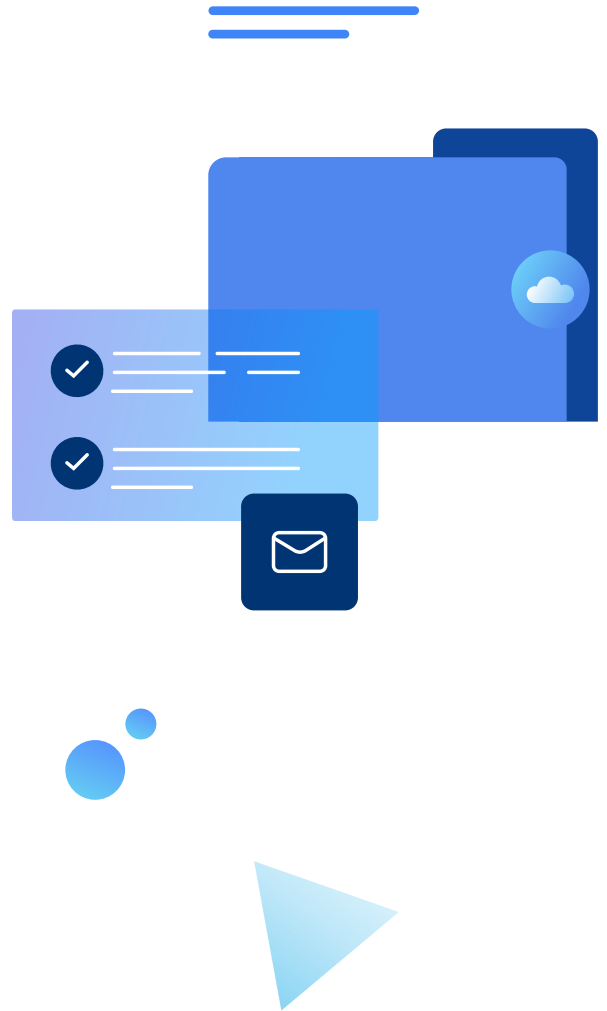
HOW TO KEEP PACE WITH CHANGE AS ORGANIZATIONS GROW

Organizational growth is impossible without change. Enterprises always find themselves in a shifting environment once they get bigger, enter new markets, and roll out new products.

The dilemma is that growth may sometimes stifle remote development teams and organizations. When stuck in a change-resistant rut, some may go overboard by solely focusing on market-level tasks and deliverables. Even though this may seem like the right way of making stakeholders happy, betting on nothing but external results may eat into an organization's agility and competitive advantage.

Being ready to adapt to change without losing a competitive advantage starts with how much effort organizations put into internal readiness. When the focus is two-fold—driving market growth and upgrading processes within a company—reorganizing work to a changing environment is easier.

One way to respond to changes is to use the Cynefin framework. Developed by Dave Snowden, whose methods and tools have left a deep impression on IBM and beyond, this framework helps organizations act upon the existing situation. It also applies to distributed engineering teams struggling to adapt to a shifting environment.

Complex
Probe - Sense - Respond
EMERGENT PRACTICE <

Complicated
Sense - Analyze - Respond
> GOOD PRACTICE

DISORDER

Chaotic
Act - Sense - Respond
NOVEL PRACTICE <

Obvious
Sense - Categorize - Respond
> BEST PRACTICE

According to the Cynefin framework, any problem that requires a response will fall into one of these categories:

- **Simple.** That's when a problem is straightforward, and so is the way of addressing it. It doesn't involve massive restructuring or lengthy research, as there's usually one best practice to sense, categorize, and respond to it.

- **Complicated.** A complicated situation is where most organizations are. It's about acting upon a problem that is either hard to solve or creates ambiguity with multiple ways of solving it. It's crucial to sense the environment, analyze the market, and respond to the problem with a deliberate strategy.

- **Complex.** Complex situations go hand in hand with emergent practices and strategies. They call for experiments and research to "probe" the market and develop solutions based on the findings. A good response is only possible after analyzing the findings to narrow down the best practices to apply.

- **Chaotic.** In a chaotic scenario, enterprises do everything they can to act quickly to solve urgent issues, which is often done without a plan. The key idea here is to sense what works and what doesn't, and discover novel practices to respond to the chaos.

- **Disorder.** This is the Bermuda Triangle of a changing environment. The unknowns prevail over clarity, and there's no evidence or data on what type of situation an organization is into.

Many practices exist to help organizations amid the growth stage. They review an organization's current processes and strategies to create room for more agility, even if it comes at the cost of efficiency.

When responding to change is an ordeal rather than an easy thing to do, organizations should:

- Cultivate a culture of experimentation where teams can conduct business experiments, collect feedback, and acquire emergent practices

- Allow distributed development teams, managers, and other employees to share and consider ideas as part of their daily or weekly routines

- Prioritize speed over efficiency with Agile practices

- Go podular to divide large teams into small, self-contained teams and improve an organization's nimbleness

- Bring decision-making to the leading edge in order to shift away from the time-consuming hierarchical process and give teams more control over their actions

- Set the stage for fast learning and knowledge sharing

With these practices, enterprises can become faster in analyzing the market and adapting to new challenges. And being faster often means being ahead of the competition

CHECK OUT OUR LATEST VIDEO WITH ASHOK VANTIPALLI,

TireHub's CIO, where he shares his experience partnering with SoftServe to transform their entire customer platform

HOW TO ENABLE SCALABLE INNOVATION THROUGH IT

The ways enterprises tap into IT capabilities for digital transformation can be self-limiting. For some, automating processes to expedite tasks that have little or no value looks like the only viable strategy. But innovation should be a starting point, not a destination.

One survey shows that fewer than **10%** of organizations are happy about how they innovate due to the alleged limits on the IT resources and technology they use.

IT has the ability to help enterprises adopt a culture of experimentation and emergent strategies for delivering innovation at scale. Take the Digital Factory model, for example.

Innovating with a Digital Factory

The Digital Factory model refers to the goal-oriented collaboration of podular teams to drive innovation within an enterprise. It involves various business units working in a behind-the-scenes manner through Agile sprints to transform processes and services, not to carry them out.

Building a Digital Factory has a lot to do with encouraging scalable innovation by:

- Creating a delivery vehicle for ideas and experiments

- Expanding the digital capabilities of an enterprise

- Running tests and launching prototypes at scale

- Delivering more value in services and solutions

- Opening new learning opportunities for cross-functional teams

- Closing the gap between real market needs and what businesses think they are

Innovating with a Digital Factory starts with building dedicated teams. They will usually comprise experts from relevant business units, lead specialists, and managers to oversee processes and guide Agile sprints.

Once the teams are there, stakeholders determine the business needs a Digital Factory will work toward. These are then framed into a business case and outcome-based processes. The planning stage also involves defining the collaboration process and what every specialist on a Digital Factory team should do.

With proper backlog management and technical advisory, a Digital Factory team can test ideas, run experiments, and design prototypes. There can be many prototypes gathering data in parallel as long as they meet the predefined business needs and align with an organization's IT budget.

The structure of a Digital Factory team

A Digital Factory team is always a cross-functional team. The idea is to encourage innovation and creativity in employees by tasking them with something they don't usually do in their workday routines.

There are three key structural units of a cross-functional Digital Factory team:

DESIGN

The design team is responsible for ensuring a Digital Factory creates the right solution for the right market for the right problem.

TECHNOLOGY

The technology team analyzes market and user data to examine whether the defined problem is feasible to solve.

PRODUCT

The product team consists of product owners or proxy product owners who examine the viability of innovation.

A Digital Factory team leader sets missions for design, technology, and product teams within a specified timeframe. Next, collaboration starts for impactful innovation to happen.

Digital Factory innovation methods

Innovation methods can vary from one Digital Factory to another, depending on what works best for specific business needs. The thing they all share is a strong focus on ideation, testing, and delivering innovation at scale.

To ideate and innovate, Digital Factory teams can rely on:

• Design thinking

• Design sprints

• Service design method

• Innovation hackathons

• Custom workshops

Of all the methods, design thinking is what most organizations are willing to embrace. Nearly 90% of Forbes Insights survey respondents plan to bet more heavily on design thinking.

This doesn't mean design thinking is the only right approach to innovate. Other Digital Factory innovation methods also work well for running tests, launching prototypes, and collecting battle-tested data at scale. They enable organizations to eliminate uncertainty while recognizing customers' unmet needs.

CHECK THE 5 STEPS OF SOFTSERVE'S DESIGN THINKING FRAMEWORK

Digital transformation journey

Inward-looking organizations can't thrive in the customer-first era. To deliver higher value to end-users, it's vital to define it by testing and establishing data-driven communication with all stakeholders.

The Digital Factory model serves as an insight-rich means of enabling a plan-driven and data-driven digital transformation. When it powers an organization's innovation initiatives, this framework helps transition from guesswork-based to insights-based actions so that enterprises can deliver more valuable services.

A typical transformation roadmap culminates in executing high-impact services through a Digital Factory. This usually follows test automation and data collection as design, technology, and product teams collaborate to accomplish business missions.

With process analytics, organizations can pinpoint improvement opportunities for Digital Factory workflows. By optimizing processes and expanding teams' capabilities, they can scale-up their Digital Factories to innovate faster and to a larger extent.

INNOVATION AND REMOTE DEVELOPMENT TEAMS

Remoteness and innovation can be difficult to piece together, but they can co-exist. The biggest hurdle is to ensure that remote or distributed teams have everything they need for real-time communication and fruitful collaboration. And once organizations overcome this hurdle, they can turn remoteness to their advantage.

How to improve remote collaboration

The back-to-office transition is unwelcome by most employees, with [76% leaning toward remote work](). That's why it isn't about how to manage distributed teams until they are back at their office desks, but how to make the remote environment more comfortable and inspiring for them today.
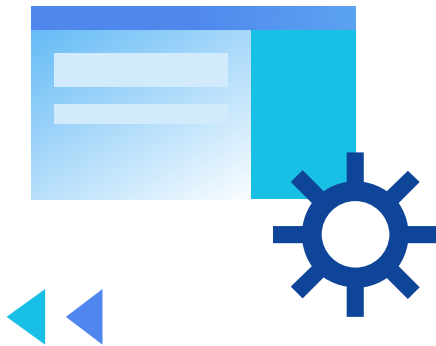
These practices can prevent distorted communication and collaboration to leverage remoteness in the innovation context:

- **Documentation.** By documenting workflows, organizations can minimize onboarding time and confusion when adding remote employees to the team.

- **Team ceremonies and sync-ups.** Any member of distributed engineering teams can feel out of place without communication. Daily sync-ups, online sprint planning meetings, and other ceremonies are important to keep team morale high and align actions toward the common goal.

- **Distributed team collaboration tools.** Zoom aside, there are many tools that can enhance collaboration, including innovation management solutions and cloud-based business tools. They are the backbone of a future-ready digital workplace.

- **Get-togethers and meet-ups.** Working remotely, organizations should still arrange team get-togethers in the physical world. Friendly conversations and team-building events can boost collaboration by helping people avoid feeling out of touch.

- **Free access to coworking spaces.** If a coworking space seems like a better working environment for employees, businesses can cover desk costs to show they care about their comfort.

Engaging teams is easier when communication and collaboration processes are optimized for remoteness. Like in office settings, organizations can conduct workshops, set up design sprints, develop products, and take care of maintenance tasks remotely. All this is doable and works well for SoftServe.

Instead of hindering processes, a good, distributed infrastructure streamlines them. For example, remoteness is an excellent environment for disseminating knowledge and embracing design thinking. With the right tools, the virtual space can spur employees' creativity as they ideate and validate ideas.

Remoteness is also a more flexible way of working on digital strategies, data strategies, and solution discovery processes. There are no on-premises setbacks like local infrastructure limitations that may trickle out as teams collaborate. That's why it's only a matter of getting used to developing strategies and carrying out processes remotely.

The essentials of a distributed innovation toolkit

An organization's innovation toolkit is paramount for building a resilient distributed infrastructure. It must include tools, methods, and practices that enable all the collaboration benefits the virtual world has to offer.

DISTRIBUTED INNOVATION TOOLKIT FROM SOFTSERVE'S EXPERIENCE:

THE RADICAL COLLABORATION METHODOLOGY

VIDEO CONFERENCING TOOLS

DIGITAL WHITEBOARDS

CONTENT SHARING TOOLS

**VIRTUAL AUDITORIUMS**

PROJECT TRACKING AND PLANNING TOOLS

The latest technologies like 5G and cloud development environments can elevate an organization's innovation toolkit. They help eliminate real-time communication and collaboration challenges, including a time zone mismatch and information bottlenecks. As a result, team productivity soars.

The best way to innovate in large remote development teams

Digital infrastructures and toolkits aren't universally perfect. Most tools can be helpful for small teams and useless for 100-strong teams simply because they aren't designed to enable innovation at this scale.

Enterprises can now switch to SoftServe's Innovation Platform if their teams are too large to use commonly available tools. Innovation Platform empowers teams to innovate at scale as they create challenges, come up with ideas to overcome them, verify assumptions, run tests, and deliver prototypes. It's a comprehensive platform that brings the largest teams into a single collaborative environment to work together and deliver better solutions.

Innovation Platform makes ideation, iteration, and delivery stages more well-planned and customizable. It lets the seeds of an innovation culture sprout across an enterprise and distributed teams by allowing every stakeholder to contribute to the common goal.

Check out this case study to see Innovation Platform in action at the Hack the New World hackathon.
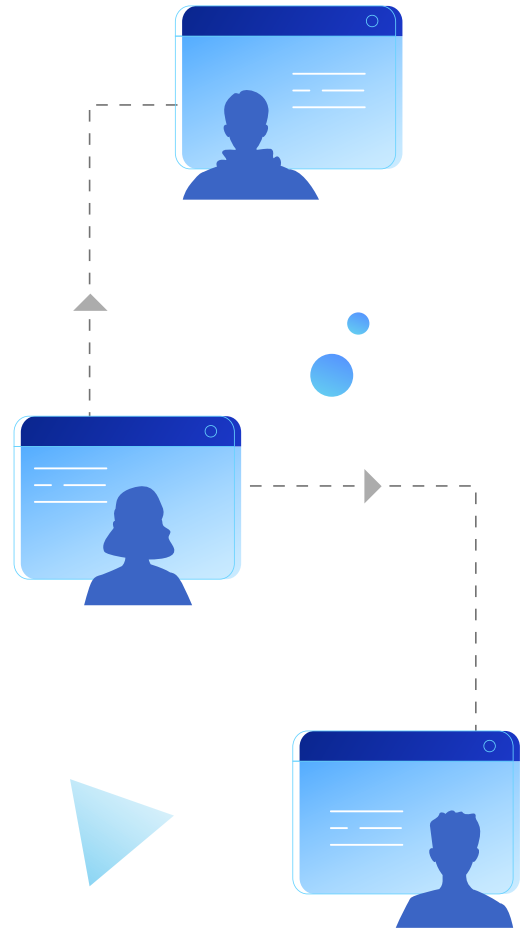
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CASE STUDY

The CIO from a company that has been partnering with SoftServe has shared their company's experience of managing innovation in remote teams. Previously, their firm was tasked with developing an innovative speech recognition platform for telephone-based payments in the insurance industry. Their team was creating a novel product with a capability in the UK and expanding it into the United States market.

The CIO recognized the importance of socializing a new product's intent as soon as possible when delivering innovation. And that's where MVPs come in.

The firm broke into the market using small prototypes and MVPs to showcase its innovation within the insurance industry and to cross the chasm to gather feedback from potential adopters. MVPs helped the company gain a profound understanding of how its product fitted into the US market from the cultural perspective, and what weaknesses had to eliminated for a smoother cultural fit.

Testing proved to be of enormous value to the firm's innovation. But setting up a favorable environment for UK-based, US-based, and other remote development teams was a tall order. That's how the company addressed it:

- Planning a schedule that worked for all teams

- Getting teams aligned with review meetings, demonstrations, and other conversation-enabling tactics

- Encouraging ideation across teams

- Testing assumptions and discarding those that didn't work early in the innovation lifecycle

- Establishing two-way communication channels between teams to make sure everyone was aware of why the product was being developed, why it would be delivered in this form, and how it would be used

- Watching out for ecosystem changes and communicating them to all stakeholders

These practices allowed the firm's remote teams to excel at testing and fighting shortcomings of the speech recognition platform early on and turn them into the product's strengths.

THE BOTTOM LINE

Collaborating and innovating in distributed development teams can be laden with uncertainty, especially when changes appear unexpectedly. However, the Digital Factory model and a well-built digital infrastructure—complete with proven innovation practices—can help organizations balance risks and succeed in their digital transformations.

SoftServe can become your full-service technology partner to drive innovation, growth, and future readiness. Our end-to-end advisory, innovation management, and business analysis services can guide you through your organization's transformation journey and make sure you can swiftly scale and adapt to changing environments. Let's talk to start innovating better!
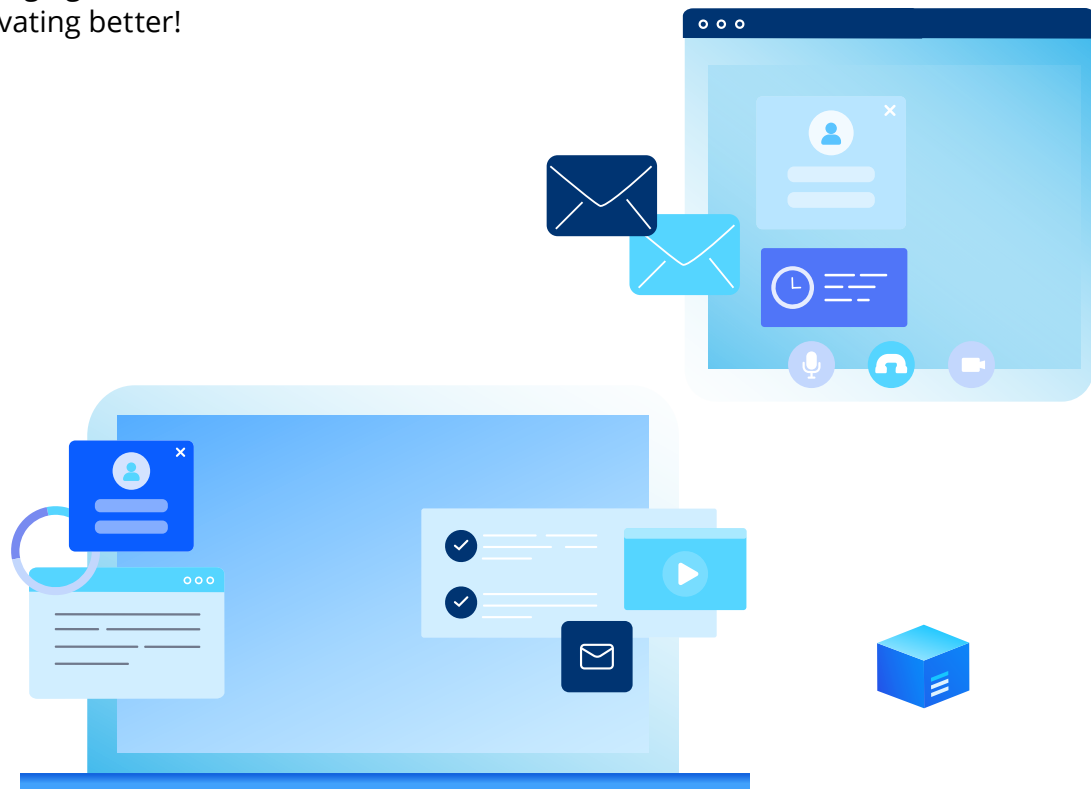
ABOUT US

SoftServe is a digital authority that advises and provides at the cutting-edge of technology. We reveal, transform, accelerate, and optimize the way enterprises and software companies do business. With expertise across healthcare, retail, energy, financial services, and more, we implement end-to-end solutions to deliver the innovation, quality, and speed that our clients' users expect.

SoftServe delivers open innovation, from generating compelling new ideas, to developing and implementing transformational products and services.

Our work and client experience is built on a foundation of empathetic, human-focused experience design that ensures continuity from concept to release.

We empower enterprises and software companies to (re)identify differentiation, accelerate solution development, and vigorously compete in today's digital economy-no matter where you are in your journey.

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