itLabs

creative, refreshing, cutting edge

HOW WE WORK

ABOUT US

IT Labs is an international company, dedicated to boosting organizations with purpose - and process-driven tech teams offering high performance, innovation, and productivity. Since 2005, we have been helping organizations of all sizes (from startups to mid-market to enterprise, non-profit and investment firms) to develop, take to market, maintain, and improve their innovative products. Born in Los Angeles, IT Labs has grown to be a global company with 700 team members in our eco system. With enterprise-grade quality and ISO certifications, our company enables organizations to successfully utilize our infrastructure.

IT Labs' Ground Rules

Highly skilled software engineers are a key element of a successfully delivered project. IT Labs as a company is taking care of their engineers, project managers, business analysts, and team leads, providing continuous training and growth opportunities.

When our teams develop a product, the following ground rules are followed:

- **Precision** – software meets the specification.
- **User experience** – no matter how complex the software solution, it is easy to use.
- **Efficiency** – effective usage of the storage space and loading speed.
- **Reliability** – high quality and attention to detail.
- **Security** – The data are protected and assured with PEN test.
- **Scalability** – easy to increase the performance of the software if the application demands it.
- **Modularity** – if the application is divided into separate parts (multi-tenant solution), those parts can be modified and tested separately.

BENEFITS

Mid-market and enterprise

IT Labs is compliant and secure. We are a customer-driven and revenue-oriented company using product management best practices in order to provide high value solutions. Our expertise lies in delivering exponential growth while maximizing investment and reducing risk.

Investors, family offices, investment groups, and PE

IT Labs is a Trusted Technology Advisor, overseeing IP investments, due diligence, ROI strategies, IP management, M&A events, productization, capitalization, IP transformation, and expansion. We develop sales-oriented, market-inspired, high-quality products for rapid and secure growth.

Entrepreneurs, intrapreneurs, and other stakeholders

IT Labs acts either as an outside CTO/technology team or as an extension of an existing technology team, providing scalable, on-demand dedicated teams helping to design, develop.

Providing in-house strategy and know-how

IT Labs provides on-demand, scalable talent in a team-as-a-service offering, and we employ, train, and nurture best in class individuals. Scaling talent on-demand allows organizations to reduce overhead by having a flexible burn rate.

- We offer comprehensive strategic and tactical guidance for developing organization's technology assets, IP, infrastructure, and services.
- We provide proper technology-based know-how, maximizing product utilization which leads to quick growth and user acquisition.
- We supply a CTO and/or dedicated project team, enabling on-demand scaling in a cost-efficient way.
- We keep investors, founders, and other stakeholders apprised of all work performed, providing guidance on all things tech, staying on time and on budget for each delivery.
- We train organization's internal staff on technology processes and advise them on scaling internal/external technology teams.
- Project team members can be present on-site and collaborate with organization’s team members.
- We enable and encourage complete transparency and communication amongst all team members.

Client onboarding

As a software development company, we own the process of onboarding our clients. With us, the process is simple, time-saving and clear. We make sure that business needs are met, and all processes are well defined and accepted by all parties involved.

The general steps of the client onboarding process are:

- The client has been introduced to the team at a kick-off meeting.
- After the kick-off meeting the client is added to the agreed upon communication channels.
- The project manager agrees the communication plan along the processes and procedures that has to be followed by the team.
- Based upon mutual agreement and the project needs, the client may be added to the task tracking tool, such as Jira, Azure DevOps, etc., to follow the project's process and progress.
- The project manager leads the project and all related processes through the project life cycle, assuring that the client is continuously up-to-date, all concerns has been addressed, and roadblocks removed.

Assessment and evaluation process

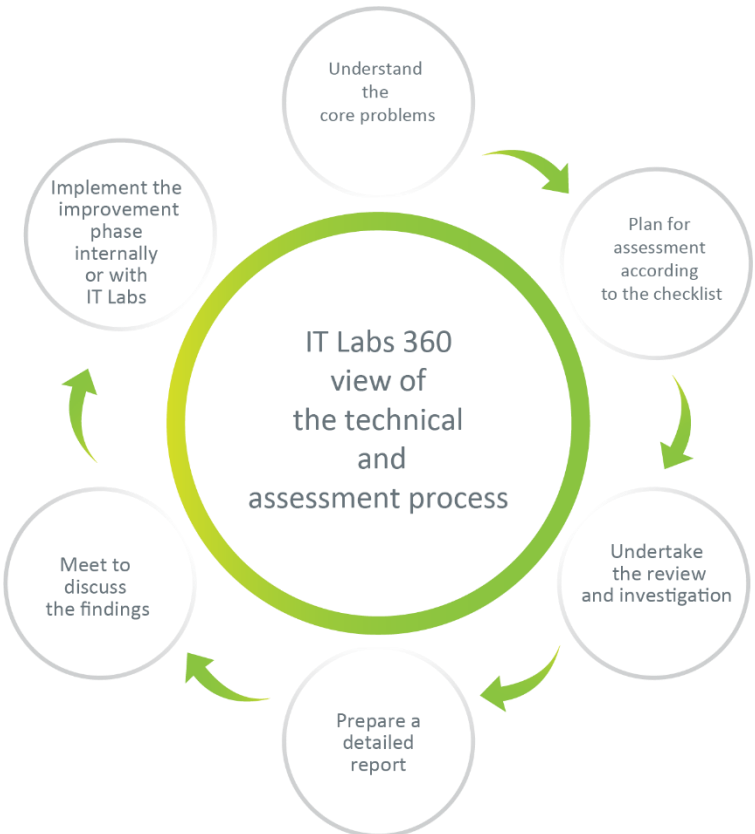
Assessing the quality of already existing software can be challenging, and yet, it is essential. During the software's evaluation process, our focus is on code quality, usability, maintainability, and overall sustainability. As there may be dozens of issues identified that require improvements and may lead to an entire solution redesign, we provide our clients with a comprehensive report containing all findings as well as suggested areas for improvement.

Assessment process contains:

- Analysis period;
- Assessment period;
- Comprehensive assessment document as the final product.

During the assessment and evaluation process, our focus is on:

- Understanding the product vision;
- Evaluating the product development process;
- Evaluating the established IT infrastructure;
- Analyzing utilized services;
- Analyzing technical staff and procedures;
- Analyzing and evaluating the product;
- Analyzing the end-user behavior;
- Evaluating the network and infrastructure;
- Evaluating backup and recovery policies;
- Network security;
- Legal compliance.



Project management and process overview

IT Labs has established a project management process which is in line with the agile methodology best practices and ISO standards. We believe that proper planning and agile development are essential to combating scope creep, containing development costs, and ensuring achievement of the anticipated return on investment. Throughout the development process, there are three essential areas which we manage starting from early conceptualization to product launch, described directly below.

Communication plan

A communication plan is created at the beginning of each project and is an essential part of successful project management. The purpose is to detail how communication will be managed in order to both develop mutually beneficial relationships and to achieve business objectives in the most efficient way possible.

The communication plan covers:

- ✓ All stakeholder roles and responsibilities;
- ✓ The defined communication process and the frequency of project reporting and meetings
- ✓ Task assignment, tracking system, and operational communication;
- ✓ Working hours, response deadlines, and public holidays.

Roles and responsibilities

- **The IT Labs project manager** - is the main point of contact and is responsible for all communication processes between the team and the client to ensure that all information related to the project is consistent, correct, accurate, and provided in a timely manner.
- **The IT Labs project team** - is responsible for ensuring that all the efforts on the IT Labs side are accomplished on time to meet the project's schedule. We are responsible to coordinate efforts, to review all of the project's deliverables, to monitor progress, and to aid the client as required. The project team ensures that the deliverables submitted by the client are accurate and meet the quality standards for the project and that the processes the client's staff follows conform to PMI standards and guidelines. The IT Labs project team reports to the IT Labs project manager.
- **The client's project team** – the product owner, project manager, and/or technical lead is responsible for the successful development, documentation, data conversion, implementation, and ongoing operational support of the project. They oversee other personnel working on the solution, including any subcontractors. The product owner, project manager, and/or technical lead are responsible to report any issues impacting the project, provide recommendations to resolve issues, and assist the project team in the successful implementation of the project. The product owner, project manager, and technical lead work closely with the IT Labs project manager and provide complete project information. The product owner, project manager, and/or technical lead are responsible for collecting and gathering all of the project's related information from the subcontractors under their current contract.

Analysis and design phase

A thorough grasp of user needs and the competitive landscape is essential to the product's success. Our experts, such as business analysts and technical leads, are researching and designing the product at an early stage in order to have a clear plan on how the user experience (UX) will work together with the user interface (UI). Besides prioritizing features, before starting with product development, our development team may also create a prototype for some of the more complex parts of the software in order to ensure compatibility of all elements.

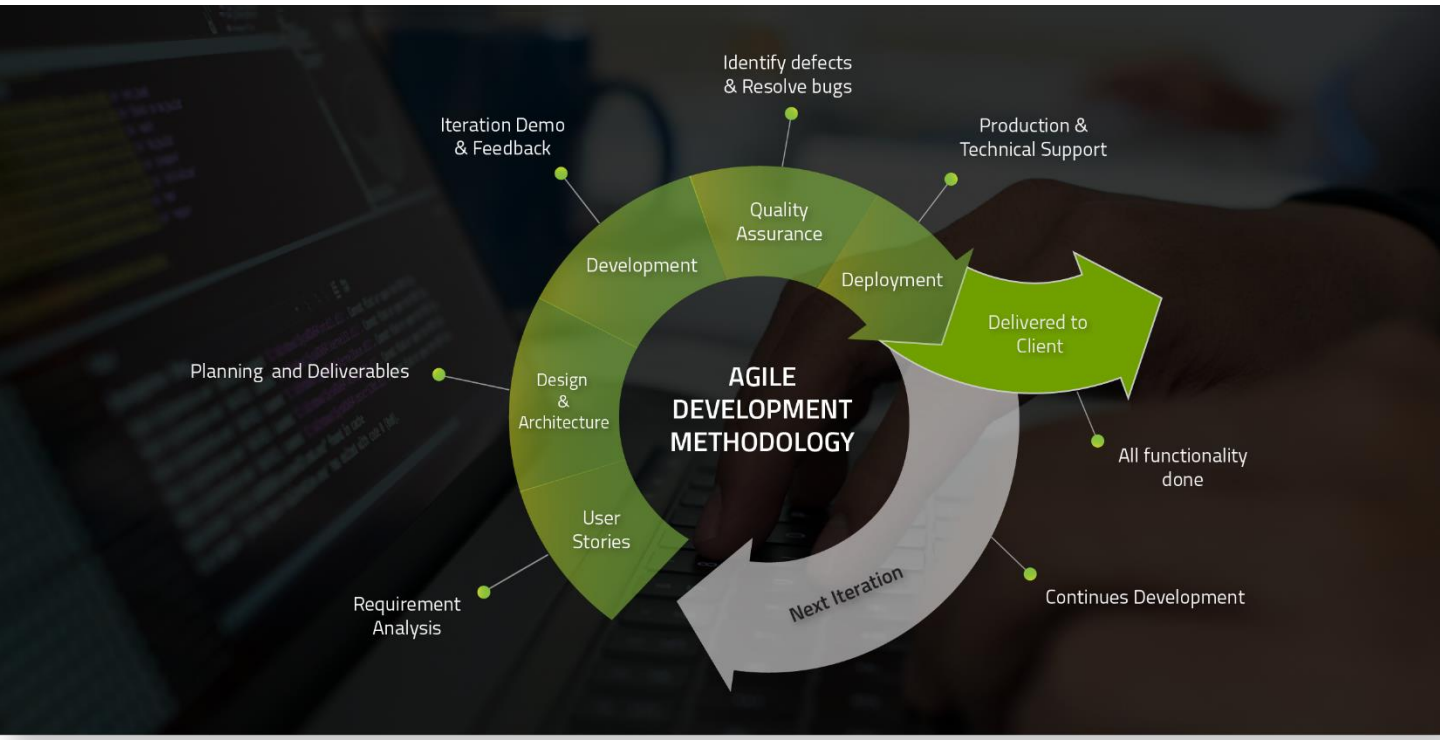
Graphic design and user experience

High quality software products that are functional place a strong focus on the end user experience. Therefore, IT Labs UI/UX experts are spending time of analyzing requirements. and understanding the needs and goals of users' experiences in order to create a design that is not only functional but also useful and intuitive.

From a design perspective, what helps to achieve a cohesive design is a centralized design record space where all documents are kept containing goals, decisions, and test results. Therefore, at the beginning of the project, the UI/UX team designs a concept that helps everyone understand the functionality and helps size up the developers' workload. This is done with prototypes wireframes, and mock-ups, as they are extremely useful for communicating designs between all stakeholders.

Iterative and continuous development

Iterative development is the way agile teams handle and process changing information throughout the project lifecycle. Iterations, or sprints, fight both market and technical uncertainties by delivering technical solutions with the best possible approach. This results in frequently delivering a minimum viable product (MVP) The MVP development allows the release of a product that can be continuously improved by validating assumptions and learning what users want from the product. The MVP also sets the stage for future iterations of development and clarifies the sequential steps that are to be taken in the project – whether that's changing directions entirely or continuing with the defined product roadmap.



We have adopted Scrum methodology for delivering software solutions to our customers, taking into account the fast changing and dynamic technology nowadays.

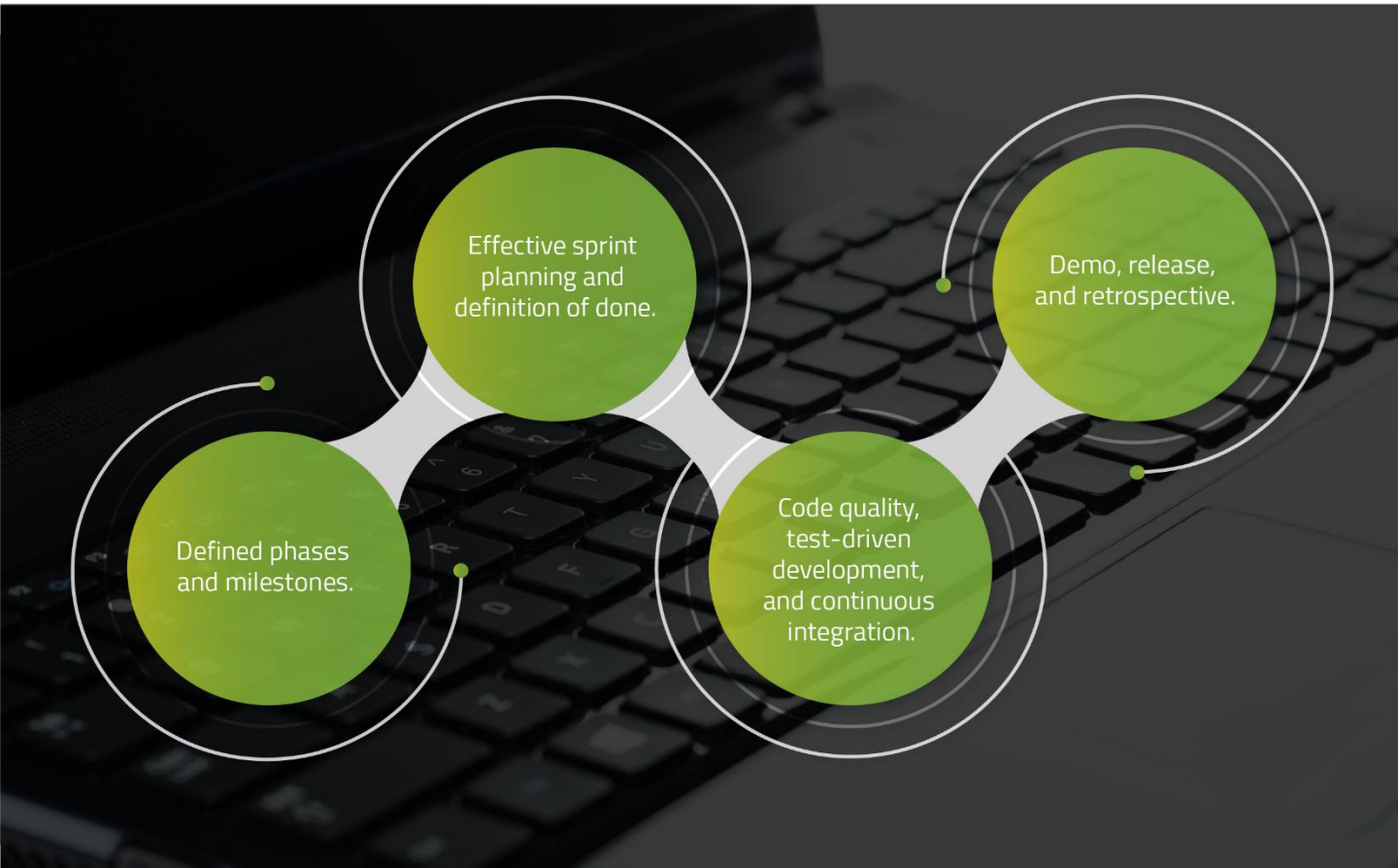
During the development phase the following activities are covered:

- Sprint planning;
- Development;
- Writing test cases;
- Executing automated and manual tests;
- Deployments;
- Monitoring, reporting, and risk management;
- Demos;
- Backlog grooming;
- Writing user stories for upcoming sprints;
- Meetings and communication with all stakeholders;
- Retrospective meetings;
- Release notes;
- Change management.

Processes

Each release consists of sprints. Based upon the defined milestone for release and the work needed to achieve it, the number of sprints and release date are determined. Inputs are collected from end-users, client, the team, managers, and executives, and as such are communicated to the product owner. A product backlog is created, and features/functionalities are divided into sprints. Sprint planning is made with the team, from which the Sprint Backlog is created.

Effective sprint planning and the quality in implementation and deliverables are based on “Definition of Done” for implementations, acceptance, documentation, and deployment solution. Also, code quality is leveraged with the following steps: Extensible Architecture, Continuous Integration, Test Driven Development, Refactoring, and Pair Work on Codeviews. The entire team commits the sprint deliverables.



Task assignment

All of the technical tasks are assigned and monitored via the defined tracking system. No tasks shall be delegated by other means of communication, formal or informal (mail, skype, etc.) The task tracking system is also used for analysis and reporting.

Artifacts

The artifacts we continuously track within our processes are:

- **Product Backlog** – a list of work items (features, bugs, spikes/research) that are potential candidates for upcoming sprints.
- **Sprint Backlog** – a list of work items that the development team(s) review(s) for the upcoming sprint. This backlog is tasked until the development team has reached its capacity.
- **Burndown Chart** – we use the agreed upon task tracking tool to manage our work items and to keep track of the team's work-in-progress (WIP).
- **Product Increment** (Potentially shippable increment) – this is the sum of all items completed in the sprint, which is usually reviewed during the sprint demo. The product increment is considered "done" according to our definition of done as a team.

Events

The events that regularly occur within our process are:

- **Product Backlog review** – this occurs regularly with PO, BA, and TL (leads) reviewing and prioritizing work items in the backlog. This ensures that the next available work items in the queue are ready to be worked on in the next sprint in order of priority. This event takes place outside of the on going sprint.

- **Sprint Planning** – this event occurs at the start of every sprint. The team reviews each of the available work items, in order of priority, and task them until the team is at the agreed-upon capacity.

- **Sprint** – this event is when the committed sprint backlog items are worked on by the team. Iterations are typically between 2-4 weeks, currently defined as 2 weeks, however, can be evaluated/updated as needed on go-forward basis.

- **Daily Scrum** – this event occurs at the start of every day during the sprint. Each team member provides a brief status of items worked, identifies what will be worked on today, and communicate any issues and/or roadblocks they may have encountered which affects their forward progress on currently tasked items.

- **Sprint Demo** (aka Client Walkthrough) – this event occurs once the sprint has officially ended. Any completed items and/or progress made during the last sprint are demonstrated by the team. This review also enables the team and PO the ability to decide whether the sprint is considered done or not.

  Sprint Demos are communicated and scheduled in advance at the start of each sprint, to ensure maximum feedback opportunities from relevant stakeholders, subject-matter experts, etc.

- **Sprint Retrospective** – this event occurs after the sprint demo. This is when the team and PM review the last sprint to answer the following three (3) questions:

  - What went well during this past sprint?
  - What went wrong during this past sprint?
  - What can we do better in the next sprint?

  This helps the team to continuously improve from sprint to sprint.

Delivery phases

Release on stage environment

When the results from testing and verification are acceptable, the project manager approves the delivery of a beta version of the project solution to the stage environment in coordination with the client. If any issues have been detected after the delivery on the stage environment, the project returns to the development phase again for further bug fixing.

UAT (User Acceptance Testing) phase

The purpose of this phase is to obtain confirmation that the solution meets mutually agreed requirements between IT Labs and the client. The client, who is the owner of this solution under test, provides trial or review tests on the beta version or approves test provided by the IT Labs project team. He/she performs these tests, which are usually derived from the client's contract or the Requirements Specification document. The project manager provides a project acceptance document to the client for sign off.

Delivery to production environment

If the client is satisfied with the final version delivered, he/she sends confirmation to the project manager via e-mail or “tracking system” system to approve deployment to the production environment. The client makes postproduction testing and finalizes the last steps on his side for the project or phase closer.

Quality assurance

Our main goal is to provide the best possible quality while balancing the development timeline and at the same time following the market demands in order to ship new and exciting features as quickly as possible. The QA team works on the project together with other team members throughout the complete software development cycle.

- **Review of requirements** – analyze system architecture and technologies, as well as any planned integration with 3rd party applications, to detect any possible discrepancies at an early stage.
- **Test planning / writing test cases** – when the requirements have been established and the user stories provided, the QA engineers start to write the test cases to describe the actions that QA engineers shall perform to make sure the pieces of software functions as planned.
- **Unit testing** – validate that each unit of the software performs as designed.
- **Integration testing** – verify that the different components work as a single system.
- **System testing** – test whether the completed system is in the line with the specified requirements.
- **Performance testing** – check the system's behavior for normal and expected peak load. The main goal is to determine the critical load after which the system breaks down.
- **Security testing** – ensure that the implemented solution has a high enough level of protection.
- **Cross-browser / cross-platform testing** – ensure that the software works as expected on different browsers.
- **Updating test cases** – update the test cases with each new iteration and/or change request.
- **Regression testing** – detect any bugs in parts of the already implemented solution which was previously tested, but due to newly added features requires retesting.
- **Smoke testing** – perform testing to ensure that the complete software works as expected once a new deployment on the UAT or Production environment has been made.

Change management

Change requests are considered part of a normal project's development process and can be requested either from the client side or the IT Labs team. The most common change requests are either changes to existing requirements or completely new requirements leading to a significant change of the scope of work.

Changes can be the result of necessary design modifications, differing site conditions, material availability, contractor-requested changes, value engineering, and impacts from third parties. Beyond executing the change, it is documented so that both parties can keep track of what has been changed and to ensure that the overall project goals have been achieved. All involved parties must have awareness and mutual understanding that in this phase some unexpected errors and/or bugs can occur to the already implemented solution which will require more time for quality assurance, testing, and stabilizing the entire application. Depending upon the size/impact of a new change request, available options are discussed with the client: to delay delivery by including that feature, to swap out some planned functionality, or to implement it after delivery. At the time a change request is received, a business analyst, together with the development team, analyzes the impact of change. The team and client (Product Owner) then decide whether or not to implement the change and when.

Maintenance and support

DevOps, maintenance, hosting, and support

DevOps plays a significant role in the custom software development process. Our DevOps team fulfills our client demands in short order with the help of automated processes which help to make faster deliveries and to upscale the software quality. DevOps' main goal is to bring a unique solution for every single project that stays reliable over time. The automation of the Software Development Life Cycle (SDLC) optimizes expenses, time, and manual efforts, especially when customizing features. The automated workflow of SDLC saves a lot of business expense as it requires less time for rebuilding the applications. More over, it optimizes the time required for running the manual tests. It brings in high quality of work which decreases the need for glitch fixing and hence, reduces the overall project costs of custom software.

Project support

Project support is defined based upon an SLA/MLA agreement with the client and begins once the systems in operation. Production support covers the warranty period as per agreement with the client and includes the incident management process. The IT Labs team provides the support necessary to sustain, modify, and improve the operational software of a deployed system in order to meet user requirements. In production support, the support consultant takes action on all production issues as per their severity to ensure the proper functioning of the services; they also work on enhancements required by those services. All incidents are registered and followed with the Incident Management Process within the support group.

Incident management

IT Labs has an established explicit procedure of how incidents are reported, monitored, and resolved. We use a 24/7 automated monitoring tool with the automated alerting system to assure that alerts with critical and high severity are reported promptly and solved expeditiously. Our clients are informed about the reasons of the detected incident as well as how it was resolved. For any discovered issues with medium and low severity, the change management procedure may be applied. Our team discusses such situations with the client, providing a solution, estimated time for resolution, and reasons why the change must be made.

Areas of expertise

Technology strategy

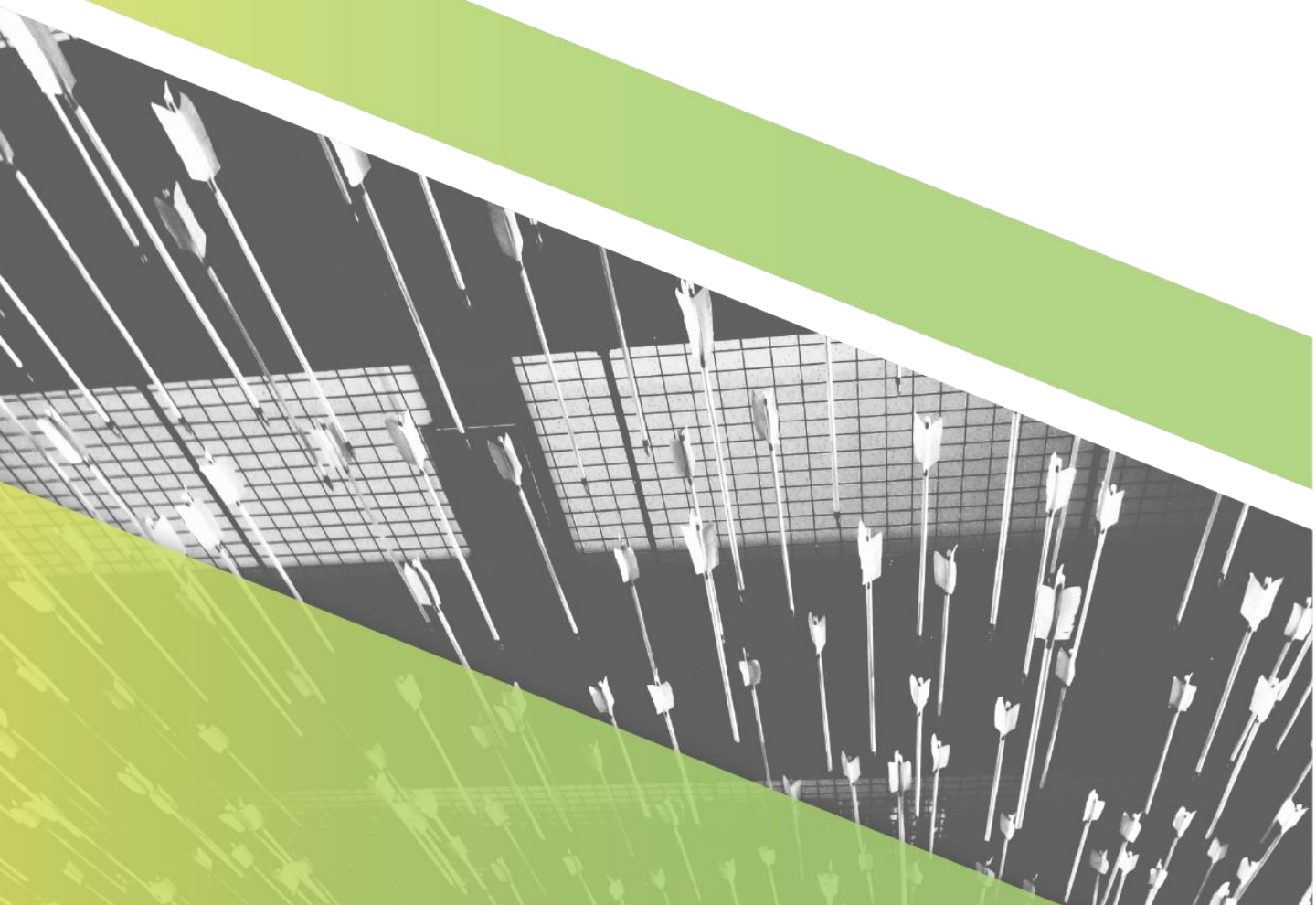
Having a comprehensive technology strategy for each project is a must. We create an architecture that provides a technical overview of the applications' and hardware's infrastructure. A key to success is engagement with all stakeholders to achieve mutual understanding and to ensure that the architecture aligns with the rest of the business and any possible future goals.

With the aim to provide the best possible solution, our experts evaluate the business, analyze the problem, and define the approach to achieve future goals. With such an approach a plan is created, including the most appropriate technology stack, hosting possibilities, and utilization of 3rd party applications.

Success criteria

Software development is an extremely dynamic and fluid process; therefore, it is extremely important to have a clear definition of the project's success criteria. Success criteria may differ from project to project, Nevertheless, the ground rules which IT Labs applies to each of the projects are as follows:

- Software shall meet all of the quality requirements.
- The product is commercially beneficial for the supplier.
- Software is developed within the time frame and budget.
- Have clear vision and objectives for any future development.



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