

Tetrao Services Overview

Intelligent Process Automation That Your Business Can Rely On



In our increasingly connected planet, the quantity of information that is produced, processed or consumed is growing exponentially. Actually, today, we are at the beginning of the fourth industrial revolution thanks, among others, to the last developments in artificial intelligence. These are bringing new capabilities and richer experiences for both enterprises and service providers, but disruption comes with challenges. The World Economic Forum forecasts in its 2016 report “*The Future of Jobs*”¹ that about 7 million jobs will be automated and 2 million jobs will be gained by 2020. This trend is simply to be embraced: automation has always been a key driver of positive and irremediable change in our societies.



“There has never been a better time to take a long-term view and use technology to solve major problems, and we’ve never needed the solutions more than we do right now.”²

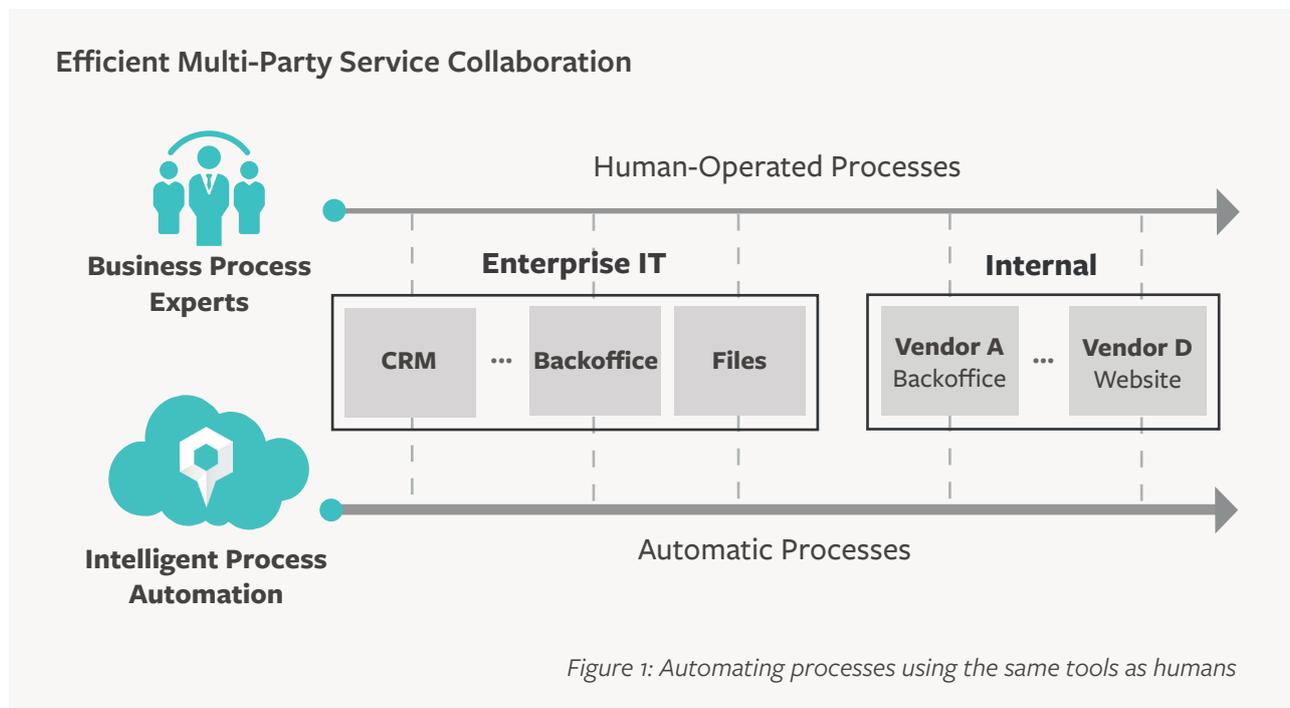
Sam Altman, President of Y Combinator and co-chairman of OpenAI

To keep up in this augmented world, enterprises are working with an increasing number of partners and an increasing number of data sources. Typically, to coordinate these multiple sources of information, manage services across heterogeneous environments and maintain service level agreements, IT teams and service providers are connecting the different data flows with either APIs or backoffice sites. This means that a process is either done automatically with an API or manually with a backoffice system. Manual processes are flexible, expensive, error-inducing and cannot scale. Processes done with an API can scale, are more precise but it is to be noted that the implementation of an API is time-consuming since it requires an agreement with the third party and custom IT developments. In our fast-paced economy, time is money and IT issues are delaying business.

To do business efficiently together, both enterprises and service providers must be able to implement quickly automatic processes and resolve issues with great flexibility. Business process experts input must be taken into account as fast as possible, reducing the time of an iteration and thus optimizing the bottom-line result. The answer to these problematics is intelligent process automation. Intelligent Process Automation (IPA) is a framework that supports enterprises retaining control of their entire business processes by using the same systems that are provided to human workers to do their job.

Simplify Your Business With Automation

Tetrao Intelligent Process Automation software enables the automation of any process a human worker does on a Web browser, being on public websites or backoffices. Automations are implemented faster because they use existing tools and require no additional or specific IT development. Simply put faster implementation equals faster return on investment. A real-time dashboard is provided to monitor the proper launch, completion, performance of your processes.



The main benefits of Tetrao IPA include:

- ▶ **Efficiency:** business process automations bring the traditional benefits of automation to the services industry, resulting in higher efficiency and higher service quality. It enables the human team to focus on more rewarding tasks with higher value.
- ▶ **Standardization:** since automated processes with the Tetrao IPA solution use the same standard tools as those at the disposal of humans, there is no need for custom developments, thus reducing greatly deployment time and maintenance costs.
- ▶ **Single point of control:** with a dashboard that provides you a real-time view of all your automated processes, you are in control. Tetrao manages, updates and maintains the software. Support is also provided in accordance with the service-level agreement.

Tetrao IPA helps to meet your IT initiatives:

- ▶ **Speed time to market:** the standardized integration method using existing tools improves agility and economy of scale as your business grows. Quick and easy integration of automated processes with tools provided by various organizations means you can keep pace with your business needs.

- ▶ **Increase customer satisfaction:** accelerated service delivery and continuous automated processes increase speed to resolution, provide comprehensive transparency, and enhance the service experience.
- ▶ **Reduce operating expenses:** automated processes eliminate manual efforts on repetitive tasks and thus increase productivity of your human personnel. Tetrao IPA technology helps you derive a faster time to value and greater return on investment.

The compelling value of the Tetrao Intelligent Process Automation solution goes beyond just cost savings and increased efficiency; it fills the gap for high-speed service integration and management, because it enables the automation of any process that can be done by hand, relieving your business from lengthy and complex negotiations over the implementation of a custom connection between information systems. IPA technology helps you meet the challenges of multisourcing and improve business outcomes and satisfaction in outsourcing business deals. You are able to manage a higher number of partners and realize real-time control of the automated business processes.



“The Lesson is, we all need to expose ourselves to the winds of change.”

Andrew S. Grove, Intel CEO
Only the Paranoid Survive

Examples of Automatable Processes

- ▶ **Accounting:** paying by connecting to a backoffice, get the list of bills to be paid, connect to the online banking system, do the necessary wires, and update the state of the bills to be paid in the company backoffice.
- ▶ **KYC/AML:** when a company needs to do background checks on its customers, it typically searches on different databases (some public, some with subscriptions) before consolidating the results in one report.
- ▶ **Sales:** lead generation and lead qualification are time-consuming tasks which require building a database from different public and private sources of information and regularly update it. Changes are important since quick reactions can result in a competitive edge.
- ▶ **Marketing:** online and social media presence require regular connections to post content and react to the user comments. Tools exist for some of the main sites but typically many actions are done manually.
- ▶ **Backoffice:** entering or updating data in a Customer Relationship Management system from external sources.

These are some general examples that apply to some extent to most of the businesses. Nonetheless it is important to stress that Tetrao is agnostic about the processes to be automated. Your in-house specialists who are doing the tasks by hand know where the automation potential lies in your business. Automation is a collaborative effort, not against but with the team responsible for the processes to be automated.

How Does IPA Work?

Tetrao Intelligent Process Automation enables the automation of any business process that a human operator can perform using a browser, which has become the standard tool to interact with any information system, in-house or with external service providers. It can be either public information or restricted access information, through an intranet or secured back-office.



The challenge of process automation is in the ability to understand semantically at any time the state of the process, to decide the next action to achieve and actually proceed with the interaction.

When using a Web browser, the page visible on the screen is the result of the interpretation by the browser software of a set of technical files: HTML files for the content, CSS files for the styling and Javascript files for the software code. It's only natural that state-of-the-art techniques used by developers to implement Web automations are based on these files: they are used to write these files themselves and know them inside-out.



“Our main finding is that it is necessary to tackle the issue of Web automation from a different angle to obtain satisfactory results, stability and economical sustainability.”

However, there are several major caveats to this approach. Firstly, the Web is an ecosystem that is getting more and more complex: any page of a typical website consists in tens of thousands of code lines. Secondly, each website is built differently and thus requires a specific parametrization of a give automation. Thirdly, the technical code of any page can change at any time and consequently the automation code needs to be updated. Our main finding is that it is necessary to tackle the issue of Web automation from a different angle to obtain satisfactory results, stability and economical sustainability.

Our approach is totally different. It consists in completely dismissing the technical code of the web sites to process them the same way that a human being does: observe the page visually, understand it and interact with the browser. Our software is naturally insensitive to most code modifications and totally to those invisible to the naked eye. To be clear: our technology uses neither HTML, nor CSS, nor Javascript.

At any time, our software can launch a routine to interpret the display of the browser. The goal is to do the opposite work of a Web designer who knows the content and its meaning and has to design a graphical representation of it. Whereas our software starts from the graphical representation and interprets it to extract its content and its meaning.

Our parametrization no longer depends on a specific web site but on intent. For instance, we designed a specific model to interpret newspaper articles, one for forum discussions, one for products, one for posting on social media, one for monitoring social media, one for executing a wire transfer via an online banking platform and so on. Of course, it is possible to tailor a model to specific needs if it is necessary, however it is the same model for different web sites.

Our software is compatible with any Web technology and thus any web site. Indeed, for the Web servers, our connections are indistinguishable from the ones of a human user. To do so, our software instrumentalizes the most popular Web browser, i.e. Chrome. In practice, this means that we simulate the behaviour of a human being by launching a web browser, which then moves the mouse and types on the keyboard to interact with the remote information systems.

Our approach is scientific and pragmatic: after a thorough study of the state-of-the-art, our conclusion is that existing solutions are suffering from the high entropy of their input. Whereas the perceived entropy by the end-user is low. For instance, once a human has learned to use Gmail, there is no need for retraining: it feels the same for the user, day after day, even if over the years the technical implementation and design of Gmail has changed thousands of times.

Our solution is radically different from the state-of-the-art techniques which must be adjusted for each different web site and for which there is also a high likelihood of need of adjustment every time a web site changes. Whereas when our software detects that a web site has changed, it simply learns and adapts to the change without any human intervention. In practice, if a web page, never seen before, belongs to a step of a workflow for which Tetrao IPA has a model, there is a very strong likelihood that it will be fully and automatically understood.



Offers that Meet Your Integration Needs

The Tetrao Intelligent Process Automation software is usually delivered in a software as a service (SaaS) model, providing high flexibility and availability as your business evolves. The software is automatically updated and the server security is maintained. All packages include a backoffice system that enables real-time monitoring of automated processes with detailed information. A role-based access control system is implemented to fine tune which users can launch processes, restart them, contact support and so on. Different level of support, service-level agreements and custom developments are available.

Custom on-site deployments are also possible and sometimes a necessity. Due to the complexity of managing the installation, updates and support in this case, this delivery method is typically used for larger organizations. A lightweight alternative is to use Tetrao IPA in SaaS mode on servers that are deployed only for your business's processes and thus insulated from other deployments.

Tetrao Professional Services

Professional Services from Tetrao help you reach your business goals with a clear and reliable return on investment.

Take the advantage with Tetrao technology and our automation expertise by:

- ▶ Assessing freely your automation potential with a tailored analysis by meeting one of our automation consultants.
- ▶ Implementing with our machine learning experts and data scientists the selected processes and building the necessary connections with relevant services in your information system.
- ▶ Getting continuous expert consulting and support that assist you through our subscription-based services.

Why Tetrao?

Take the lead in your business by embracing a disruptive technology to free your workforce from repetitive processes. Backed by machine learning and process automation experts, you can successfully make your team focus on high-margin processes and on creation of value.

Whether you are looking to optimize the precision of current processes, lower costs, mitigate risk, open new markets, or accelerate growth, Tetrao delivers business value.

FOR MORE INFORMATION

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