:MULTISHORING

AGILE SOFTWARE DEVELOPMENT

– How we create teams and carry out projects
in the Scrum framework -

Multishoring Ltd. We are part of the EUVIC technology group.
London Office: 590 Kingston Road, London SW20 8DN, UNITED KINGDOM, +44 20 3397 3241
Headquarters: 56/89 Okopowa St., 01-042 Warsaw, POLAND, +48 22 486 32 00, email: **sales@multishoring.co.uk**
www.multishoring.co.uk

Table of Contents

1. Summary

Scrum is a process framework that has been used to manage software development since the early 1990s. The basis of this framework is the assumption that the knowledge comes from experience and decisions should be based on what is known. For that reason Scrum employs an iterative, incremental approach to software development to optimize predictability, control risks and continuously improve the development process.

Multishoring.info very often uses the Scrum framework in software development projects carried out for our clients on the nearshoring and offshoring basis. We apply the best Scrum practices that are defined by the Scrum founders and practitioners gathered in the **Scrum.org** community. Reading this document you will learn in detail how we start the cooperation with a client, what the first steps of our Scrum consultant are to implement or improve the Scrum process for the client, and how the agile software development looks like.

2. How we provide the agile software development services

The cooperation usually starts with a personal meeting – at the stage preceding the signing of an agreement. In general, our clients know at this stage that they want to implement the project in the Scrum methodology or even they have already started to carry out their software development projects in that way, but have some trouble with this because of the lack of relevant experience. During the initial meeting, our consultant collects the basic information on the IT systems to be covered by our development and maintenance services as well as on the related problems.

Following discussions and consultations between Multishoring.info and the client at the stage preceding the conclusion of the agreement, we usually agree that the best solution to our client's current problems is introducing an additional person to the project – a consultant from Multishoring.info with vast experience in coordinating projects in the Scrum framework. The coordinator is selected by the client after a thorough analysis of a candidate's CV presented by Multishoring.info and a personal interview. He is then assigned a trial task to allow the client to become familiar with the standard of our services.

2.1. Initial tasks of Multishoring.info's Scrum Master

The trial task usually relates to solving specific problems that arose during our client's project. Our Scrum consultant therefore plays the role of Scrum Master and his main task is to improve the project management, in particular to define the processes, principles of communication and cooperation in the Scrum framework. To do so our consultant first learns how the project has been carried out so far, what problems it has run into, what tools are used, etc. Discussion partners for our consultant at this stage primarily include the IT Director as well as so-called Product Owners, responsible for the use of the developed systems on the business side.

This initial task usually takes about a month. During that time our consultant spends about two weeks in our client's locations, meeting with the IT Director and Product Owners as well as becoming familiar with the software development process and problems related to it. Then our consultant works remotely to propose modification to the process and the division of roles in it, so as to organize the work in a more effective way in the Scrum framework.

2.2. The organization of work in the Scrum framework

Modifications proposed by our Scrum Master always aim to ensure that as far as possible the software development process, roles and relations between them reflect the ones defined in the Scrum framework. Each component within the framework serves a specific purpose and is essential to Scrum's success and usage.

Below you can find a description of how it should look like in an ideal scenario.

Sprints

In the Scrum framework all the software development work is divided into sprints. Each sprint may be considered a project with no more than a one-month horizon. The sprint includes a definition of what is to be constructed, a design and a flexible plan that will guide the construction, the work, and the resultant product, the so-called increment which has to be in a useable condition at the end of the sprint.

Project team

Sprints are carried out by the project team. It should be self-organizing and cross-functional. It means that the team should be able to choose by itself how best to accomplish its goal and should have all the competencies needed to do so, without being directed or depending on others who are not part of the team. The project team is comprised of the Product Owner, the Development Team and the Scrum Master.

Roles within the Project Team

Product Owner - a person who uses the system in the organization and who requires improvements to it. For example - the Product Owner for a WMS system can be the Logistics Manager, and for a CRM system - the Sales and Marketing Director. The important thing is that the Product Owner is always one person, not a committee. He is responsible for managing the product backlog, which is the only source of requirements for any changes to be made to the system. The management of the product backlog includes creating its content, making sure it is available and clear to everyone, and ordering changes.

Development team - made up of software developers who deliver potentially releasable increment of the system at the end of each sprint. The development team should be self-organizing and cross-functional to decide by itself how to create a system increment and to be able to do so without any help from outside. The team can gradually incorporate new developers if required and they do not need to have any previous experience in Scrum, just the necessary competencies to help achieve the

project goals. It is important, however, that the team is not large, so that it could be easily managed.

Scrum Master - responsible for ensuring Scrum is understood and enacted. The Scrum Master does it by ensuring that the project team adheres to the Scrum theory, practices and rules. The Scrum Master is a servant-leader for the project team, helping those outside the team to understand which of their interactions with the team are helpful and which aren't. The Scrum Master helps everyone change these interactions to maximize the efficiency of the project team.

Sprint Events

Each Sprint is divided into special events that are to better organize the work of the project team by planning it, monitoring its progress, and trying to constantly improve it.

Sprint Planning - the work to be performed in the sprint is planned at the Sprint Planning. The plan is created by the collaborative work of the entire project team. The planning can take 4-8 hours for each sprint. Sprint Planning answers two questions: 1) What is to be delivered in the Increment resulting from the upcoming sprint? 2) How will the work needed to deliver the increment be performed?

Daily Scrum - a 15-minute event for the development team only to synchronize activities and create a plan for the next 24 hours. This is done by inspecting the work done since the last Daily Scrum and forecasting the work to be done before the next one. The event is held every day at the same time. After the meeting team members can immediately discuss in detail their daily challenges to adapt to the current situation and make sure they will achieve the sprint goal.

Sprint Review –an informal 2-4 hours meeting that is held at the end of each sprint to inspect the system increment and adapt the product backlog if needed. During the Sprint Review, the project team and stakeholders discuss what was done in the sprint, what should be done next and how the work could be optimized.

Sprint Retrospective – this event occurs after the Sprint Review and prior to the next Sprint Planning. It is an opportunity for the project team to inspect itself and create a plan for improvements to be enacted during the next sprint.

All of these meetings can be conducted on a mixed basis – some of the participants can be physically present at the meeting while some can take part in it remotely via video-conferencing tools.

2.3. Transparency, inspection and constant improvement

Agile software development requires also certain rules to make working in the Scrum framework efficient and beneficial. The most important of them are: transparency, inspection and constant improvement.

Transparency

Scrum relies on transparency. For this reason product backlogs as well as other project documentation have to be clear and available to everyone involved in the project all the time. It is also very important that those performing the work and those accepting the work product share a common definition of "Done". A special role in achieving transparency is played by the Scrum Master whose job is to work with the project team and the client to learn, convince, and change. Achieving full transparency usually takes quite a lot of time, but it is necessary to make decisions to optimize the process and control risks on a sound basis.

Inspection

The founding principle of Scrum is also inspecting of the work progress. Therefore, the project team members must track the total work remaining at least for every Daily Scrum to assess the likelihood of achieving the sprint goal and to manage its progress. Also the Product Owner is supposed to track the total work remaining to achieve the overall goal of the project at least at every Sprint Review. The product owner compares this amount with work remaining at previous Sprint Reviews to assess progress toward completing the projected work by the desired time for the goal. This information should be made transparent to all stakeholders.

Constant improvement

The agile software development is about constant improvement. All the transparency and inspecting work is to find obstacles that hamper the achievement of the goals of both each sprint and the whole project. When you know your impediments, you can search for the solution that will make the work more effective and efficient.

2.4. Tools that we use to support agile software development

We usually take advantage of the OnTime Scrum system to support the agile software development. OnTime Scrum is used for project management and bug tracking. It is available online via a secure

login page. Using it we can easily manage product backlogs, organize products, versions and sprints, automate processes with workflows, ensure secure operation by assigning user roles and perform many more actions.

At the client's request also other IT development systems may be used, such as Jirra or any other tool that the client is familiar with.

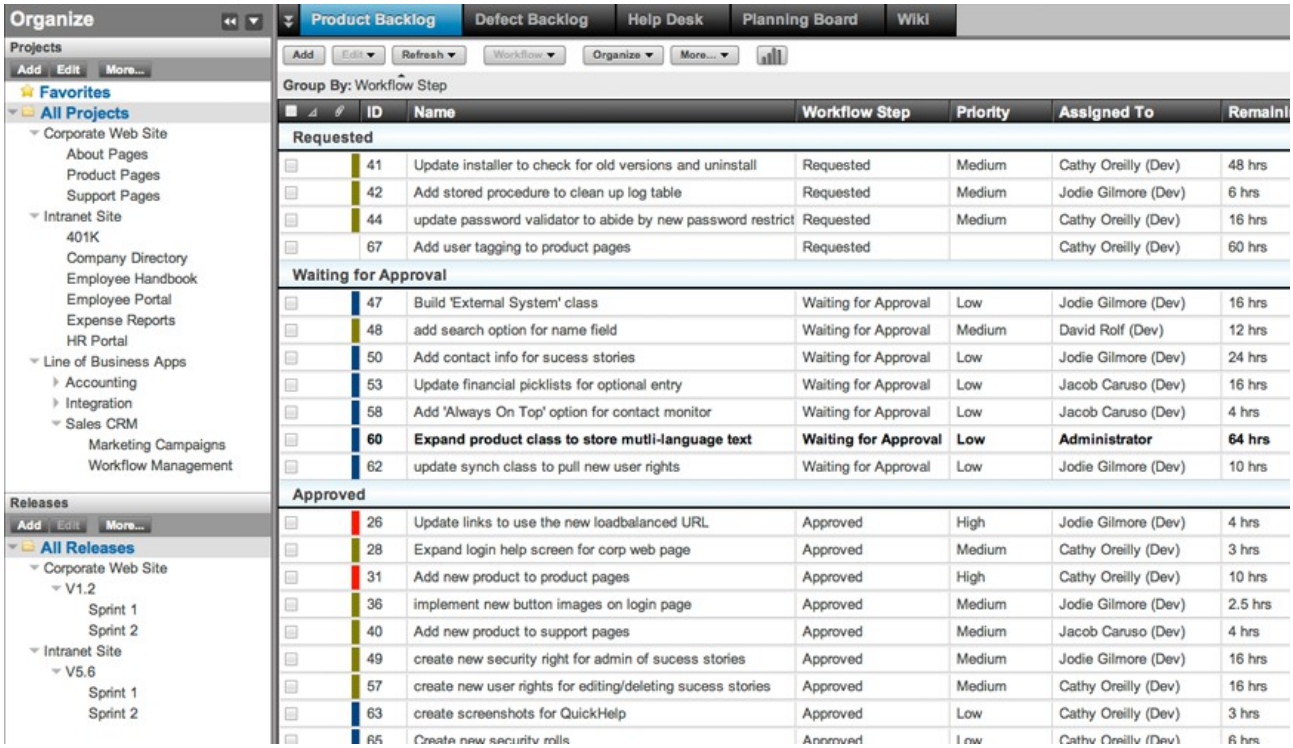

Illustration 1: OnTime Scrum – sample screen of the system

Communication & collaboration environment

We can use many different types of software for gathering project documentation, collaboration and communication, such as Microsoft SharePoint portal and Microsoft Lync, Google+ corporate communication environment or SalesForce.com and Skype. We can also adapt to any other communication and collaboration environment that is preferred by the client.

3. Case study

To find out more about how we can help to introduce or improve software development in the Scrum framework in your company, read a case study on how we took over software support, maintenance and development of IT systems at HL Display, Europe's leading merchandising company. It is available at: http://multishoring.co.uk/case-study.

4. Information on Multishoring.info

Multishoring Ltd. is **the largest nearshore and offshore IT development provider in Poland**. The company was set up in 2011 as an initiative of the capital group **EUVIC** to provide top notch IT outsourcing services. The EUVIC technology group employs over **1,000 consultants**, has **900 active customers** around the world and its turnover was **over EUR 28 million last year**. Multishoring has its headquarters in Warsaw, Poland, and it has a subsidiary in London, UK. The originator and founder of Multishoring is **Fild.NET** (**www.fild.net**), a leading integrator of Microsoft solutions in Poland, with extensive experience in conducting nearshore IT development projects.

Multishoring.info's consultants and architects have implemented nearshore IT projects for many global corporations, mainly from Germany, Italy, Sweden and the UK, such as **ABB, Skandia, Airbus Military, Vatennfall, Opel**. Our portfolio also includes **deployment projects in medium-sized companies** operating all over Europe. Our consultants are **certified and recommended contractors of projects implemented by Microsoft and Oracle**.

Multishoring.info conducts its business guided, most of all, by the following values: **continuous improvement of quality standards**, **mutually rewarding relationships**, **business ethics** and **sustainability**. More information available on our webpage: **www.multishoring.co.uk/our-values/**.

TECHNOLOGY EXPERTISE

- Advanced Microsoft solutions (BizTalk, SharePoint, Dynamics CRM, Project Server, SQL Server, Exchange Server, Lync Server, Office 365, Windows Azure)
- Mobile solutions development (iOS, Android, Windows Phone, BlackBerry)
- Java Spring Web Development with VMware vFabric
- Oracle EBS
- SOA Software
- Google App Engine
- Salesforce
- TIBCO
- Webmethods
- FileMaker
- Scandinavian Technologies (inRiver, EPiServer, Jeeves)
- Other (.NET, JAVA, C/C++, JavaScript, PHP, COBOL, Ruby on Rails)

QUESTIONS?

If you have any questions or you wish to begin using our services, please contact our consultants by phone:

GERMANY:	+49 69 222 246 170
NETHERLANDS:	+31 202 170 230
POLAND:	+48 22 486 32 00
SWEDEN:	+46 850 638 380
UNITED KINGDOM:	+44 20 3397 3241
UNITED STATES:	+1 855 642 1072

or e-mail: sales@multishoring.co.uk.