



Code Review:  
OutSystems® Platform

Overall Impression of  
OutSystems® Platform:

**Ten times easier and  
way more productive than  
existing procedural  
techniques.**

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#### QAT Global - PoC Requirements

- Unrestricted application code access
- Reliable interoperability between modern and legacy systems
- Efficient solution delivery and lifecycle management
- Flexible application deployment and detachment options; No lock-in risk
- Optimized development team onboarding, workflow and collaboration

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#### OutSystems Platform

- High-productivity application development and change management
- Standard, extensible Java and .NET code generation
- Automated DevOps with one-click deployment and staging
- Cloud, on-premises or hybrid development and deployment

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#### Key OutSystems Benefits

- Faster application delivery
- Standard Java and .NET applications with easy customization
- No platform lock-in risk
- Easy to provision, deploy and maintain
- Low total cost of ownership
- Better scalability, security and sustainability
- User satisfaction

## Solution Category Overview – Enterprise Application Development Platform

Enterprise software development and maintenance can be a challenging task, especially when delivering complex client solutions. Challenges reflect a long list of technical and human factors, ranging from application delivery, integration, and maintenance to global collaboration and cost-efficiency. If success revolves around a development platform, it better be a good one.

Agile, visual coding platforms that simplify and streamline application development offer an attractive alternative to manually hand-coding every module and application. When selecting a development platform, it is important to avoid what can be an ugly reality behind some of the pretty interfaces of conventional visual RAD tools – trading control and flexibility for ease-of-use and speed. While ease and speed are good, coding platform solutions must provide developers the ability to extend the model with their own functions and code. Platforms that force developers into proprietary languages and locked-down structures are fatally flawed.

### Proof of Concept Review – OutSystems Platform

QAT Global evaluated OutSystems Platform as a potential complementary development solution. Our multinational team needed a faster, easier, and more flexible way to develop and deliver solutions.

QAT Global needed a solution that facilitated:

- Unrestricted application code access
- Flexible application deployment and detachment options; No lock-in risk
- Efficient application delivery and lifecycle management
- Reliable interoperability between modern and legacy systems
- Optimized development team onboarding, workflow and collaboration

QAT Global fully benchmarked and road tested OutSystems Platform to identify its strengths, weaknesses, and overall viability – paying specific attention to the quality of the generated code.

### The Evaluation Process and Environment

QAT Global's review process evaluated OutSystems Platform as a possible replacement or complement for our current 4GL and code generation tools and platforms. The evaluation also tested the feasibility of establishing an OutSystems consulting practice, which included significant considerations for lock-in and code quality on detach.

### About OutSystems

Hundreds of companies in 24 countries across 22 industries use OutSystems Platform to rapidly deliver custom, mission critical applications - while improving IT productivity and reducing their change request backlog. OutSystems customers deliver innovative applications that easily integrate existing systems and data to support new business initiatives and replace legacy applications.

[www.outsystems.com](http://www.outsystems.com)

### About QAT Global

QAT Global helps our clients solve business problems by connecting innovative technologies to create business solutions through our repeatable processes and professional solutions, services, and consulting. For over 19 years, QAT Global has been an innovation partner delivering high quality results on time and on budget. Providing a comprehensive range of technical and strategic consulting services, we focus on how IT can make a real difference to businesses by building in agility, streamlining business processes, integrating data assets in new ways, and transforming technical assets.

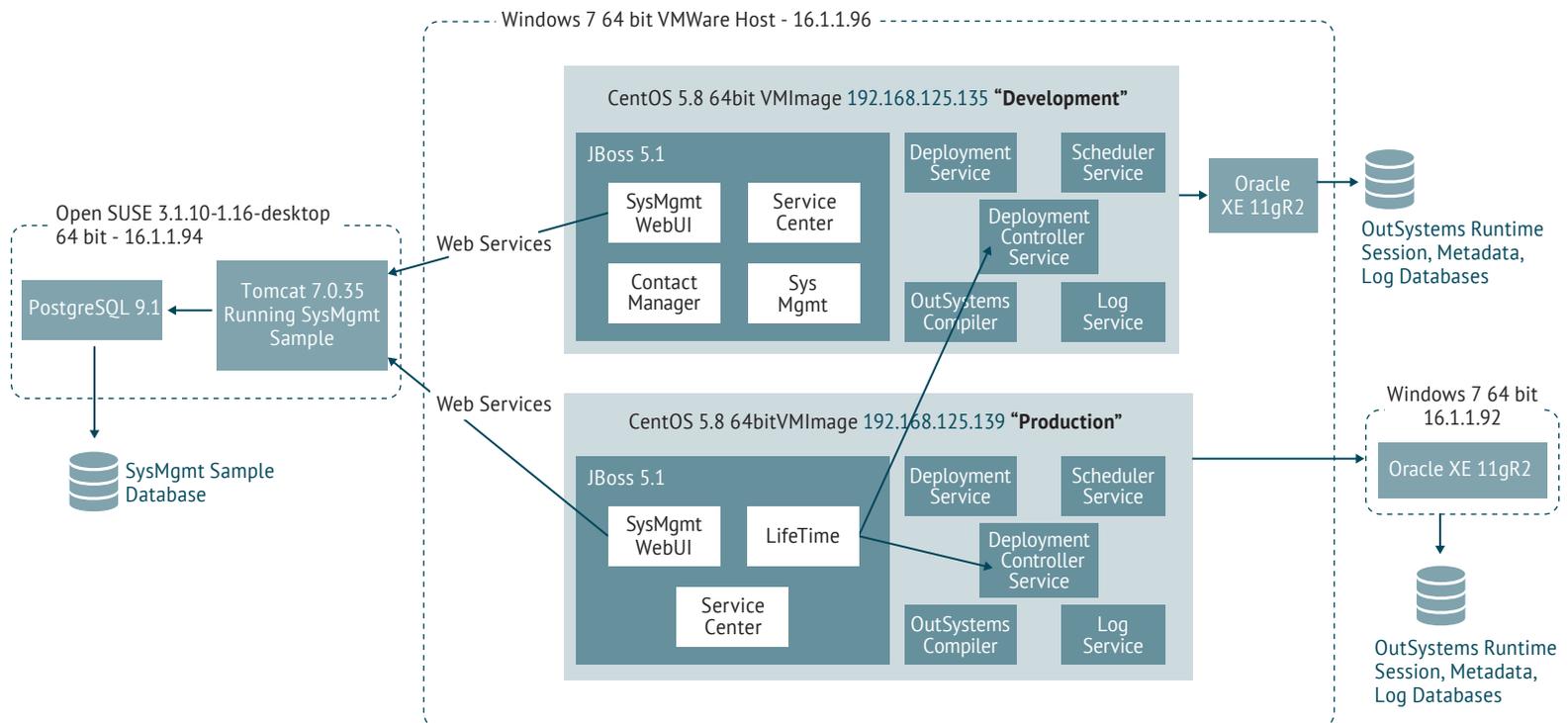
[www.qat.com](http://www.qat.com)

One of our senior system architects at QAT Global performed the evaluation and provided expert review. His perspective as primarily a back-end developer proved that the solution provides a user interface development platform that allows novice front-end developers to become proficient quickly. This served as a real-world test of the versatility of OutSystems Platform and the short learning curve.

Key evaluation steps included:

- Install and configure two Linux CentOS VM images.
- Replicate sample code using OutSystems Platform, including security and authorization with custom roles.
- Test access to external web services.
- Validate no lock-in by detaching code from OutSystems, importing into Eclipse, and verifying that applications run in a generic environment.
- Create a simple mobile application.
- Test DevOps continuous delivery capabilities by simulating promotion of release from one environment to another.

The QAT Global evaluation system architecture



## Evaluation Results and Conclusions



### EVALUATOR ASSESSMENT

“We invested the time and serious consideration to find the good and the bad aspects of OutSystems Platform. The pros far outweigh any weaknesses, and the weaknesses are easily overcome.”

“We are excited about OutSystems Platform. It does everything it claims to do and more.”

### OutSystems Provides Unrestricted Application Code Access

The QAT Global evaluation team successfully demonstrated the ability of OutSystems to weave existing developer code into the overall visual application model via Eclipse and Visual Studio plug-ins. Once the composite application was built, the QAT Global team verified the output to be standard code that was ready-to-deploy, well-architected, maintainable, and documented.



### EVALUATOR ASSESSMENT

“As advertised, the code is structured and layered. There is a separate layer for I/O, business logic, and UI. This well-structured and layered code speaks highly for OutSystems story of detachment. This doesn’t necessarily mean that all of the code is generated just as we might do it by hand, but it is certainly manageable.”

“The platform uses a flowcharting approach for logic development that is very easy to use and understand, even for novice developers. It allows the creation of custom components that can be easily integrated into the action flow.”

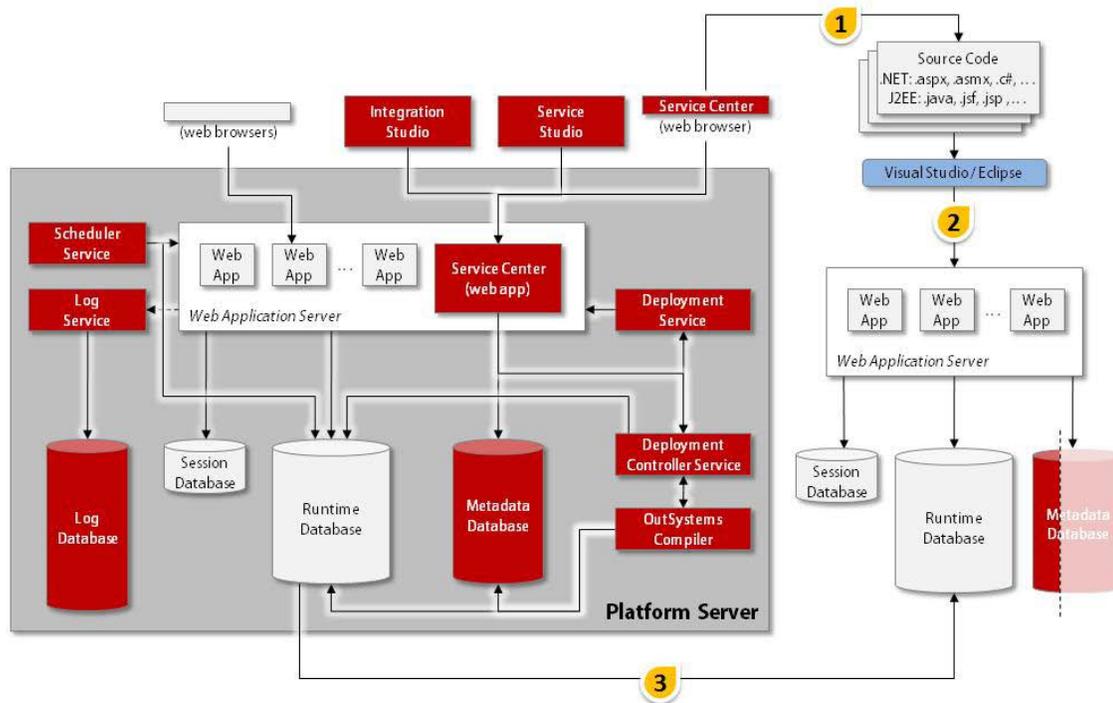
### OutSystems Provides Flexible Application Deployment and Detachment Options; No Lock-In Risk

The QAT Global evaluation verified the ease and practicality of detaching and migrating OutSystems applications. While this capability is generally not needed, it eliminates lock-in risk and helps ensure long-term stability, scalability, and investment protection. This was a key point and question during this trial.



### EVALUATOR ASSESSMENT

“It’s refreshing that OutSystems is not afraid to talk about life after OutSystems. It isn’t just smoke and mirrors, it really is very easy to detach. The fact that they will openly discuss detachment and help customers understand and achieve it reflects their confidence in the Platform and gives us confidence as well.”



### Three-step application detachment process

1. Download Java/C# source code from OutSystems
2. Compile and deploy the application using Eclipse/Visual Studio
3. Optionally migrate databases/schemas to a new database server

## OutSystems Provides Efficient Solution Delivery and Lifecycle Management

Our testing concluded that OutSystems provides a comprehensive solution for application development, delivery, and maintenance. The high-productivity visual development environment lets new or experienced developers generate optimized Java and .NET code, while enabling complete “under the hood” control over capabilities and code. OutSystems also provides easy manageability via automated DevOps software lifecycle management and “one-click” application publishing and rollback.



#### EVALUATOR ASSESSMENT

“OutSystems provides the Platform to support the full application lifecycle from development to production and maintenance with monitoring. It’s truly soup to nuts deployment; monitoring, logging, and debugging, both for the UI side and the back-end. The full application lifecycle is a true strength of the solution.”

“Data or entity-driven development is where the solution starts. OutSystems is a platform that covers the entire architecture. A person with no experience using front-end development technologies such as JavaScript, Java Server Faces, JQuery, CSS, etc. can build rich web interfaces in a short period of time. An experienced front-end developer can build on what OutSystems provides via properly placed JavaScript and custom CSS. Building back-end components is also very easy.”

## OutSystems Provides Reliable Interoperability between Modern and Legacy Systems.

Legacy enterprise “systems of record” are often hobbled by obsolete interfaces, security and deployment options. QAT Global evaluators found that OutSystems is an easy and versatile solution to update and extend these critical systems with attractive web interfaces, mobile capabilities, and other modern features.



### EVALUATOR ASSESSMENT

“We had a good solution to replace back-end servers. It was easy to wrap a proxy, make it a web service, and put a new front-end on it. We generated back-end applications as web services and rapidly built an entire front-end using OutSystems. This is a significant advantage of using the Platform... it’s easy to build a better front-end on a platform that has a good back-end, it’s a no-brainer.”

## OutSystems Provides Optimized Development Team Onboarding, Workflow, and Collaboration

A development platform should facilitate developer productivity, collaboration, and onboarding. With OutSystems, we found that the Platform could drastically reduce the amount of time required for application development, delivery, and developer onboarding.



### EVALUATOR ASSESSMENT

“We basically built the application in a day, and we didn’t know OutSystems. We just did the tutorials, not any of their boot camps. I find this amazing. Traditionally, when we bring on new Java resources, they are sent through a two-week boot camp for our architecture and our standards. For a front-end developer, it’s a three-week boot camp. With OutSystems, we were productive and produced the exact same thing, front-end and back-end, in a few days and didn’t have to spend all that time in training.”

“QAT Global understands the importance of a repeatable process when it comes to bringing on new developers and we’ve worked hard to accomplish that. For handwritten code, it always requires a ramp-up time to communicate the standards and technology. With OutSystems, this ramp-up time is easily reduced by at least 75%. That’s huge! It speaks highly of the Platform.”

“We routinely use remote developers and have to send those developers through that training in order to achieve our quality standards. Using OutSystems Platform really does make this exponentially faster.”

“The tutorials are very good. They’re created for a novice or experienced developer to self-train. Side-by-side with developing an application, tutorials can be running and developers can do the things the tutorial talks about. The presentation is well done and it’s clear that they put a lot of thought into this... I started out on a very positive note because the tutorials were so good.”



#### EVALUATOR ASSESSMENT

“One of the interesting things we found was when coding by hand, a developer has to keep track of every update event from the front-end to the back-end. OutSystems was able to do all of that work automatically. Also, the idea of being able to detect when something is saved and when something is not is a nice freebie that’s built in, it can be dealt with very easily in OutSystems. When doing that by hand, it is usually skipped. OutSystems provides a real advantage with such a powerful and consistent UI.”

## Summary

In the test drive, QAT Global demonstrated that OutSystems Platform provides an open, high-productivity development environment that enables innovative solutions for complex enterprise application and legacy system challenges. Even though our end customers will likely never need to dive into it, OutSystems Platform generates standard, documented, and easily maintained code that helps allay lock-in fears. This overall approach helps accelerate developer productivity, collaboration, and onboarding. Further, it simplifies manageability with automated DevOps software lifecycle management. OutSystems Platform offers a safe, no compromises, no lock-in approach that adapts and scales with evolving business and technology requirements.