

OUTSYSTEMS RICOH (SINGAPORE) PTE LTD

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THE BOTTOM LINE

Ricoh (Singapore) Pte Ltd. deployed OutSystems to build critical business applications three times faster than on its

previous solution. Nucleus found that OutSystems helped Ricoh replace multiple unsupported applications, thereby breaking down siloed data streams. With the simplicity of application development, Ricoh developers could quickly start to deliver applications with OutSystems, reducing the payback period and increasing productivity.

ROI: **253%** Payback: **o.6 years** Average annual benefit: **\$131,967 (SGD)**

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THE COMPANY

Ricoh (Singapore) Pte Ltd. provides an array of image processing equipment and other products and services to offices in Singapore. Its primary products include multifunction copiers, printers, and scanning devices, as well as software, services, and equipment. Ricoh's Japan-based parent company founded the Singapore subsidiary in 1995.

THE CHALLENGE

Ricoh's departments operated on siloed solutions, receiving inconsistent support from a variety of vendors. Fixing the middleware linking the customer relationship management (CRM), data relationship management (DRM), and order fulfillment solutions was a pressing issue. Ricoh initially planned to hire a team of senior

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developers to rewrite some of its applications and open the application program interfaces (APIs) so information could be shared between departments. The time and expense of rewriting applications and managing the projects caused Ricoh to rethink its approach. It looked for alternative platforms on which it could build its applications.

> Cost : Benefit Ratio **1:1.5**

THE STRATEGY

Ricoh began considering CRM platforms in July 2015. Some of solutions on its shortlist were expensive and not customizable to fit Ricoh's business needs. When Ricoh met with OutSystems, Ricoh tested the platform by giving it a project that was scoped to take 1.5 years. OutSystems was able to accomplish 80 percent of the project in 4 days using an intern, demonstrating the abilities of the platform. Ricoh selected OutSystems for several reasons including:

- Platform. Ricoh was able to see how quickly it could develop applications with OutSystems without extensive training or a steep learning curve for developers.
- Cost. OutSystems subscription costs were lower than what Ricoh would have spent with a pre-built CRM or DRM solution.
- Mobility. Applications come mobile-ready, giving users access to applications from any web-browser or device and helping sales increase productivity.

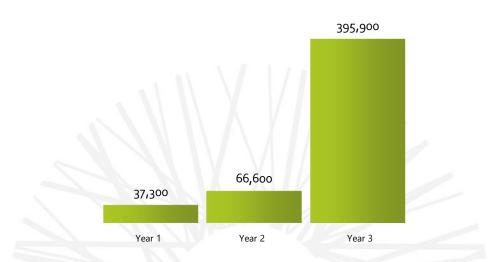


Ricoh deployed and started working with the platform in one day. Newly hired developers were trained on the platform in two weeks using the materials provided by OutSystems. To keep infrastructure costs low, Ricoh deployed OutSystems on VMWare virtualizations. The company hired a senior developer on retainer to assist with transferring old data to the platform as needed.

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KEY BENEFIT AREAS

Developing with OutSystems enabled Ricoh developers to solve business problems in less time, increasing productivity. Key benefits of the project include:



CUMULATIVE NET BENEFIT

- Improved stability. Applications built with OutSystems require minimal management and operate smoothly. Ricoh is able to monitor each application running on the platform and can receive an alert to any changes in application performance.
- Reduced learning curve. OutSystems was responsive to Ricoh's inquiries and worked closely with them to get junior developers up and running.
- Increased developer productivity. Ricoh developers have built more applications faster with OutSystems than they would have on other platforms. Developers were able to build three times as many applications as they did on the previous development solution prior to implementing OutSystems.
- Reduced hardware and software costs. Ricoh has replaced old, siloed systems with new mobile applications reducing maintenance and management costs.
- Increased revenues. With the improvements to Ricoh's CRM solution, sales associates can access the customer information they need faster and leverage the mobile capabilities to generate more sales.

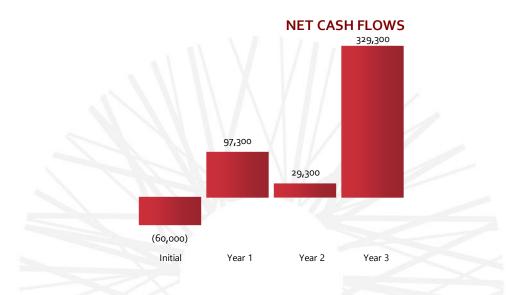
Before implementing OutSystems, if a developer left the organization, the code left behind might be hard to read or unusable, resulting in wasted time and effort. However, Ricoh developers found OutSystems' visual code easy to understand. As a

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result, if a developer leaves, Ricoh is not negatively impacted and the project can continue without interruption.

KEY COST AREAS

Costs of the project include software subscription costs, consulting, personnel to support the application, and employee training time.



BEST PRACTICES

Because OutSystems applications can be quickly and easily deployed on mobile devices, Ricoh can ensure that its applications keep up with the latest updates to mobile operating systems. For the teams dedicated to business operations, up-todate and functional mobile applications enable them do their jobs more effectively. Additionally, Ricoh is insulated against developer turnover due to the standardized application development capabilities. Lastly, Ricoh developers can make changes to applications based on user requests more quickly, empowering users to tailor applications to their needs and flexibility to adapt as their needs change.

CALCULATING THE ROI

Nucleus quantified the costs of software subscription, ongoing consulting fees, personnel time to implement and support the application, and training time for new users to calculate Ricoh's total investment in the OutSystems deployment

Direct benefits quantified included the avoided software costs by replacing old applications with those built with OutSystems as well as a reduction in hardware

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costs by deploying on VMWare. Indirect benefits quantified included increased developer productivity, which was calculated based on the average annual fully loaded cost of a developer using a productivity correction factor to account for the inefficient transfer of time saved to additional productivity.

Unquantified benefits include the increased profits driven by more productive salespersons who are able to work more efficiently and pursue more leads using the customer relationship management system built with OutSystems.



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FINANCIAL ANALYSIS

OUTSYSTEMS - RICOH (SINGAPORE) PTE LTD

Annual ROI: 253%

Payback period: 0.6 years

BENEFITS	Pre-start	Year 1	Year 2	Year 3
Direct	0	148,000	140,000	290,000
Indirect	0	228,000	228,000	228,000
Total per period	0	376,000	368,000	518,000

COSTS - CAPITALIZED ASSETS	Pre-start	Year 1	Year 2	Year 3
Software	0	0	0	0
Hardware	0	0	0	0
Project consulting and personnel	0	0	0	0
Total per period	0	0	0	0

COSTS - DEPRECIATION SCHEDULE	Pre-start	Year 1	Year 2	Year 3
Software	0	0	0	0
Hardware	0	0	0	0
Project consulting and personnel	0	0	0	0
Total per period	0	0	0	0

COSTS - EXPENSED	Pre-start	Year 1	Year 2	Year 3
Software	60,000	90,000	150,000	-
Hardware	0	0	0	0
Consulting	0	36,000	36,000	36,000
Personnel	0	2,700	2,700	2,700
Training	0	150,000	150,000	150,000
Other	0	0	0	0
Total per period	60,000	278,700	338,700	188,700

FINANCIAL ANALYSIS	Results	Year 1	Year 2	Year 3
All government taxes	45%			
Cost of capital	7.0%			
Net cash flow before taxes	(60,000)	97,300	29,300	329,300
Net cash flow after taxes	(33,000)	53,515	16,115	181,115
Annual ROI - direct and indirect benefits				253%
Annual ROI - direct benefits only				-127%
Net Present Value (NPV)				178,933
Payback period				o.6 years
Average Annual Cost of Ownership				288,700
3-Year IRR				161%

All calculations are based on Nucleus Research's independent analysis of the expected costs and benefits associated with the solution.

All figures in Singapore Dollars.

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