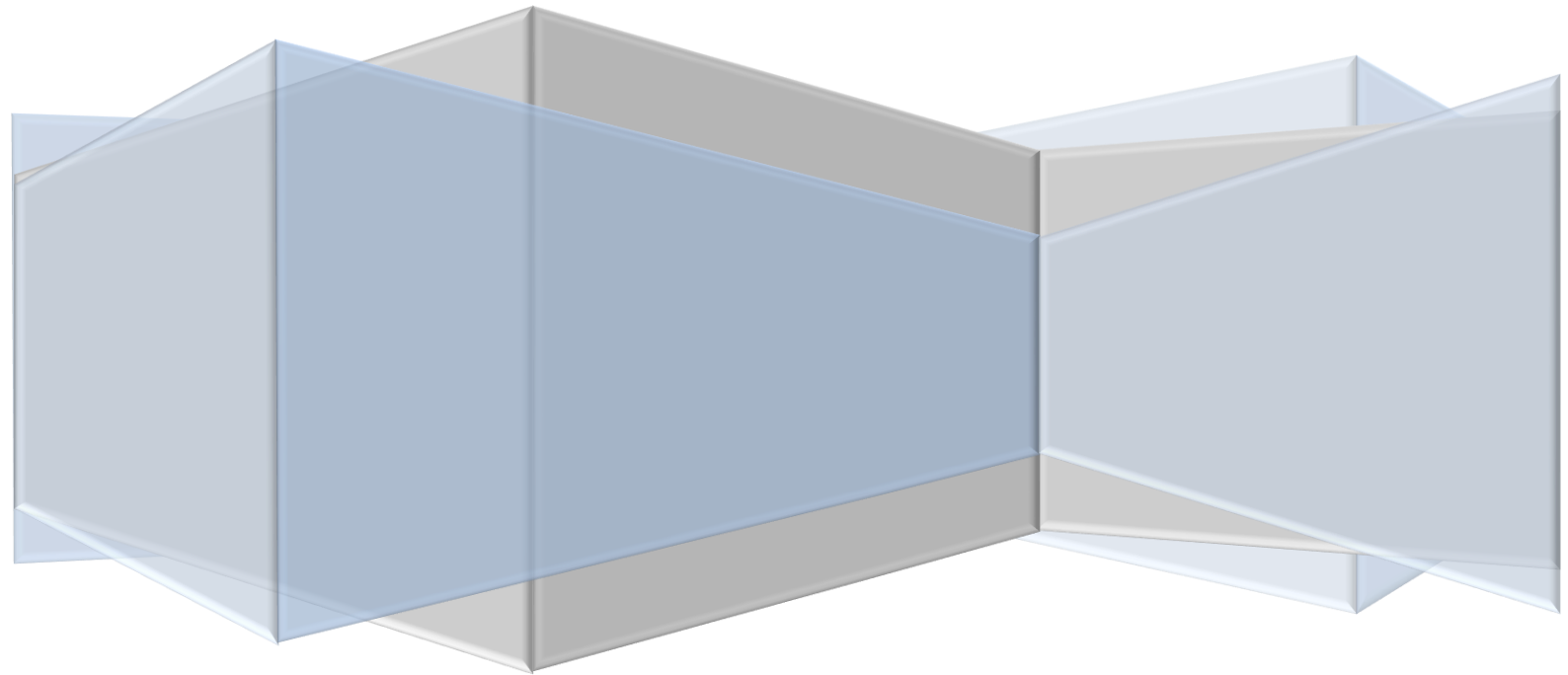


*Connected Systems Consulting Ltd*

# **BizTalk Maturity Assessment**

## **Case Study 1**



# Table of Contents

- Introduction..... 2
- High level view of maturity..... 3
  - At Start..... 3
  - 3 Months Later ..... 4
  - 8 Months Later ..... 4
  - High Level Summary ..... 5
- The lower level details..... 6
  - At Start..... 6
  - 3 Months Later ..... 7
  - 8 Months Later ..... 9
  - Category Level Summary ..... 9
- Summary..... 11
- About the Author..... 12

### **INTRODUCTION**

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Case study 1 is about a company in the UK where I was asked to try to help rescue a project which was in a bad place. They had been using BizTalk for approximately 1 year and were still in the development phases of a project where they were working with a large 3<sup>rd</sup> party CRM vendor. The organisation was using BizTalk 2006 R2.

The organisation was facing a lot of challenges. They had a lot of problems with the customization of the CRM application but because their BizTalk capability wasn't very mature they also had a lot of problems with BizTalk which caused problems during development and testing and as result BizTalk was blamed for most of the problems.

The CTO of the organisation was unhappy with the way the current project team were operating and managing their integration and called me to provide an external view of what was wrong and how best to fix things.

When I became involved with the project, it was really obvious straightaway that they had a number of problems around their ways of working which were stopping the project team from being effective.

These problems included:

1. The organisation struggles to understand what work was in what state
2. The project team were poor at collecting requirements which meant that there their development was beyond dealing with change in an agile way and into dealing with change in a chaotic way
3. There were no clear development standards or practices such as testing and continuous integration which meant that releases to environments were producing a very high failure rate
4. The solutions produced had lots of defects
5. Testing was continually blocked by defects for extended periods
6. The BizTalk environments were a mess with no owner, no clear usage plan and no consistency around what was deployed where.

## HIGH LEVEL VIEW OF MATURITY

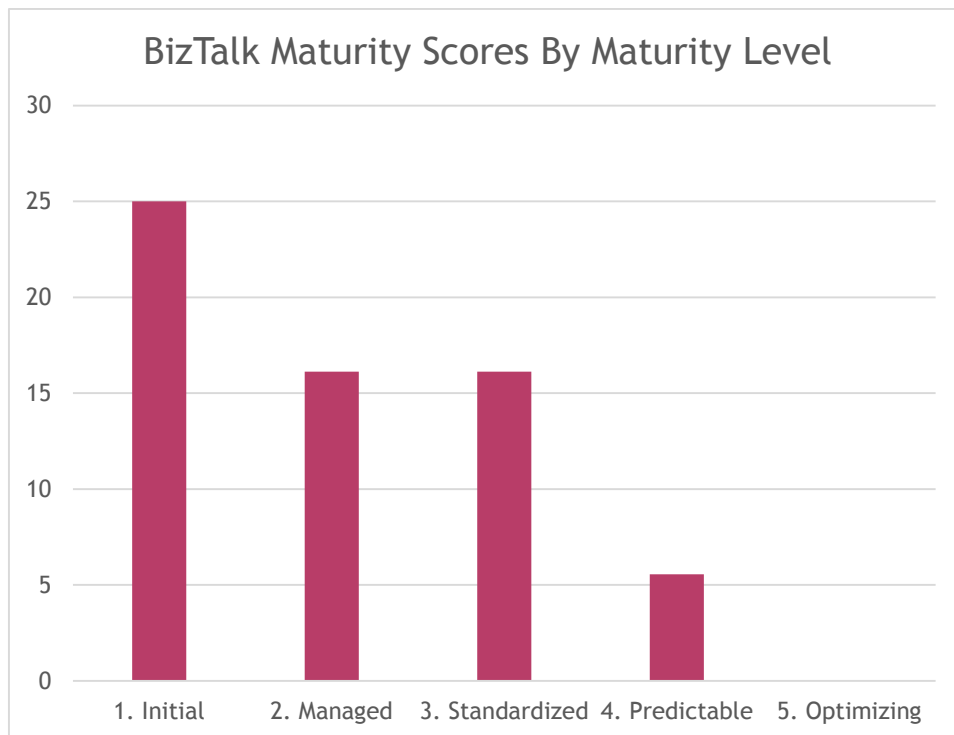
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To show you the value of the maturity model for this organisation in the sections below I have shown the before and after overview for this organisation.

### AT START

When I first engaged with this organisation they had been undertaking this BizTalk project for about 1 year and were still in the middle of their first BizTalk project but as mentioned above they were having lots of problems getting this project towards its end and they had missed numerous deadlines. We undertook the maturity assessment and the graph below shows that while the organisation does about half of the things you really must do to in the Initial level of maturity, you can see there are significant gaps. As you would expect from what this model shows the project was really dependant on key resources and a big lack of processes and standardization meant that there were often lots of issues when the key resources were under pressure from many project activities happening at once.

One of the key effects of these problems was that it was also difficult to scale the teams because all of the knowledge was trapped inside these key people.



Looking at the graph at this stage it's pretty obvious the organisation is not in a good place and hasn't really achieved success in any of the maturity areas.

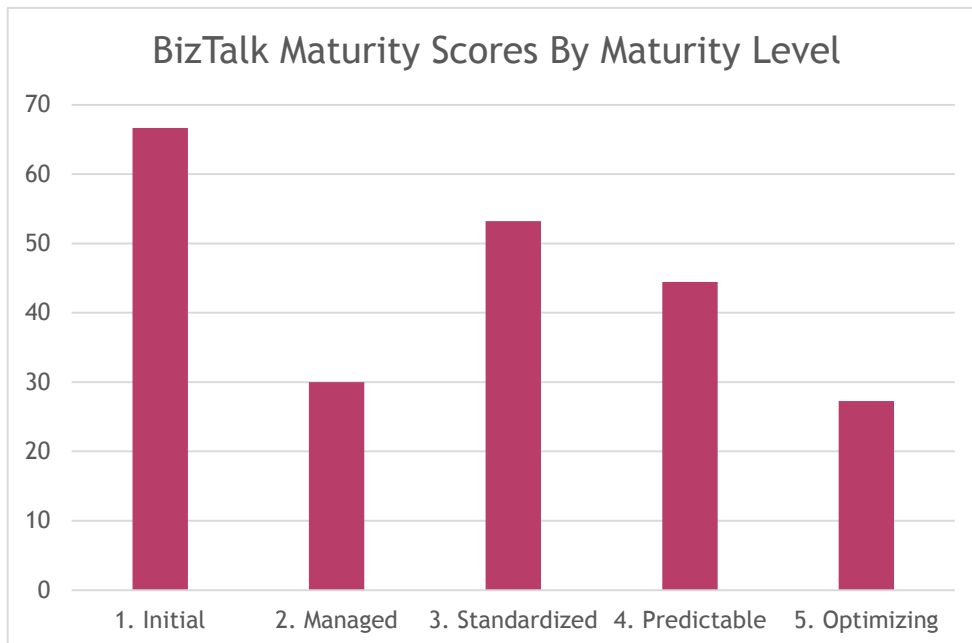
### 3 MONTHS LATER

After three months we had made significant improvements in all areas. The key things that were covered were that the initial maturity area had been significantly improved to address as many as possible of the common root cause things which you need in your BizTalk capability regardless of how you work. We also made significant strides in the standardized and predictable areas.

One of the things to note here was that for this organisation the most important areas to improve were in development and the transition from development through test and to get it to production. Other organisations may need work to be done in the managed area of maturity first, particularly if your problems are based around applications in production and you're not really doing any new work.

These improvements meant that the organisation was in a significantly better place to start getting their project moving and the general feeling that BizTalk was the cause of problems had gone already.

The below chart shows the results of a maturity assessment taken after 3 months.

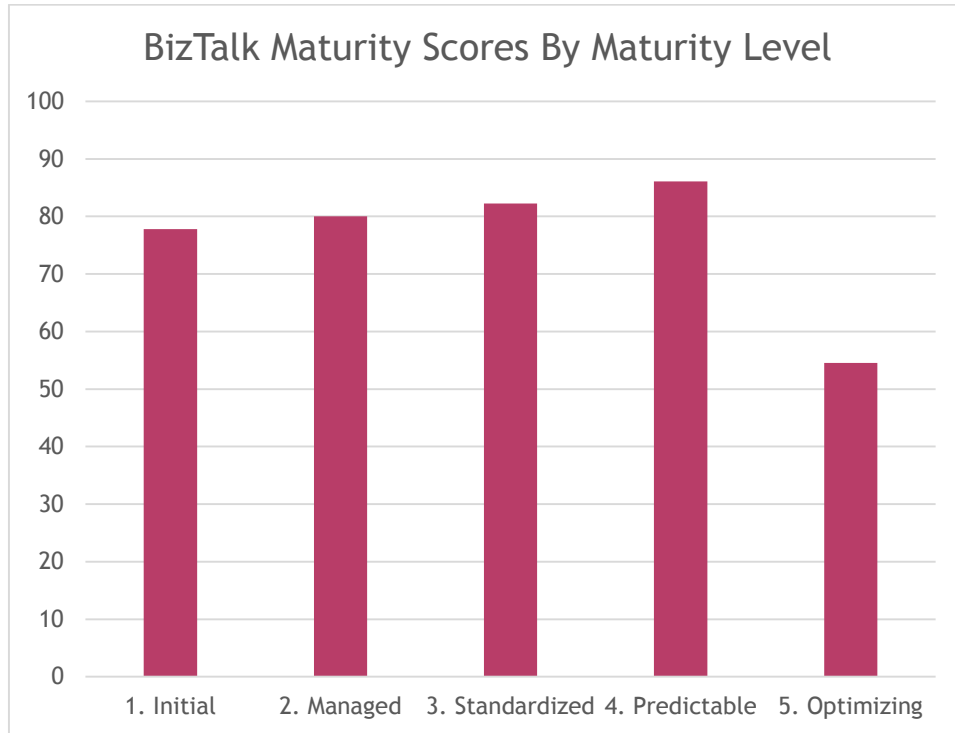


### 8 MONTHS LATER

We would regularly track progress by updating the survey, but to give you a view of the overall improvement the below graph shows the maturity in each area taken about 8 months later.

By this point the customer had delivered 2 more releases of their first project adding many more new features. They had also delivered 3 other smaller projects using BizTalk and were starting to look at a potential migration to BizTalk 2010.

The organisation now had its own well established development capability and was used to maintaining and supporting BizTalk.



### HIGH LEVEL SUMMARY

The below table shows the improvement made in relation to each maturity area over the course of the engagement.

Area	Start	3 Months Later	8 Months Later	Overall Improvement
Initial	22	66	77	55
Managed	16	30	80	64
Standardized	16	53	82	66
Predictable	11	44	86	75
Optimizing	0	27	54	54

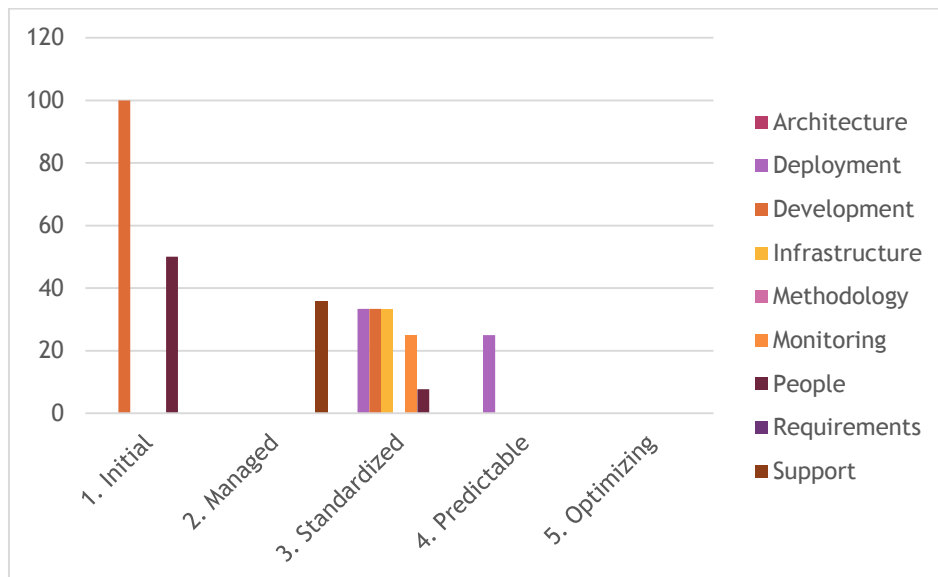
## THE LOWER LEVEL DETAILS

The high level view of the maturity model gives an excellent top level view of where the organisation sits but the key question is how you would work out what areas are important to focus on? By using the more detailed view in relation to the maturity level of each of the categories outlined earlier in this document you can work out which areas to focus on for the maximum benefit.

Sometimes you may be in a position where your organisation would be struggling with weaknesses in a lot of areas and you really need someone with experience to help you work out where the best value can be obtained. At other times things may be far more obvious from the model where improvements need to be made.

### AT START

The graph below shows the detail of the starting position of this organisation.



From this level of detail it reconfirms that the organisation is in a poor place and needs to improve everywhere to be successful. The problem was with the experience in the organisation and resources available they did not know where to start to tackle things.

When I was engaged with the organisation, through the use of the initial assessment and the position the organisation was in with regard to their current projects and future plans I was able to identify that the following areas were the most important to focus on first:

- Deployment
- Development
- Infrastructure
- Methodology

In terms of development the organisation was in a bad place. The code being produced by the development team was unreliable and it often broke during deployment or simply didn't allow the test cases to be successfully completed. While the organisation achieved the initial level of maturity they were exactly where you would expect them to be in terms of producing code that didn't work and was difficult for the team to work together with.

The organisation was also struggling with deployment and infrastructure. If your environments aren't built well or well managed then you are always going to have problems. The team were struggling to deploy successfully and couldn't really rely on the results of any tests that did succeed because due to code and environment reasons test results weren't consistently repeatable.

The model also shows a lack of any methodology or process about how work was done. This meant that there the team was not working to any established way or working. It made things completely dependent on individuals and if someone left or went on holiday no one knew where things were.

Now let's look at some of the initial changes I made.

During the first 3 months we did the following:

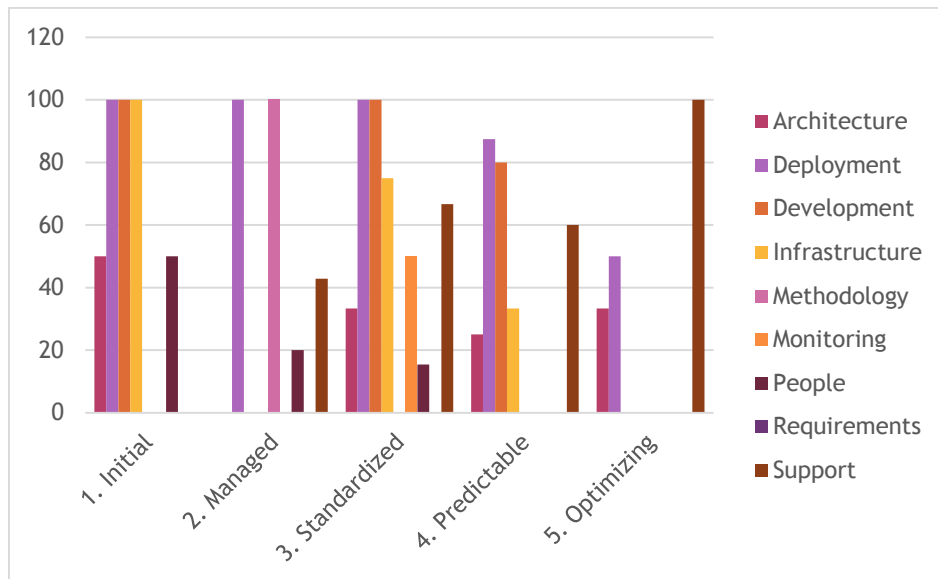
1. Introduced continuous integration
2. Improved the unit and BizUnit testing
3. Simplified some of the overly complex code
4. Rebuilt the environments so they were built to a documented standard
5. Created a deployment process that was consistent across BizTalk applications
6. Introduced Kanban as a way of tracking and managing work at a simple level
7. Outlined some of the standards we wanted to work to
8. Coached some of the team to be working the way they needed to
9. Setup an escalation path for issues

While we made significant improvements in the categories I have outlined above, we also made progress in other areas as a side effect of some of the work we were doing.

### **3 MONTHS LATER**

We updated the assessment 3 months later and you can see below there is a considerable improvement in all areas.





The improvement in this initial phase was really focused on getting the project back on track and to begin successfully delivering things. The project team was able to now work with less day to day coaching. At this point there were other BizTalk opportunities starting to emerge and I began to look at the areas which we needed to focus on to be able to deliver other projects and to mature the capability to live with BizTalk as a production service more effectively so the organisation could really now get a good return on their investment by using BizTalk as a strategic integration platform.

At this point the focus was more around the following categories:

1. Methodology
2. Monitoring
3. Support
4. Requirements

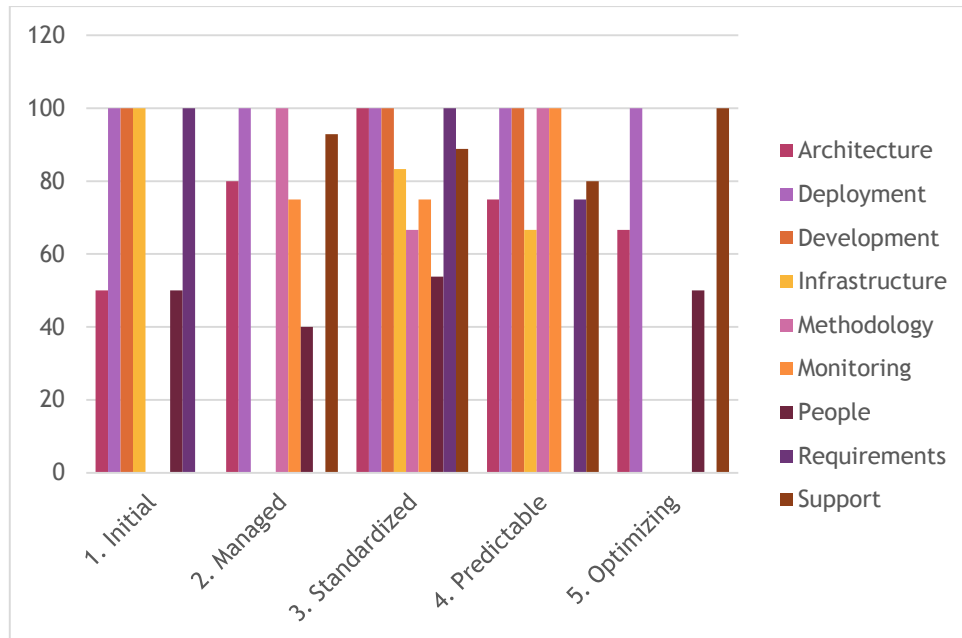
Improving the maturity of requirements and methodology is going to help the organisation with any future BizTalk projects to make improvements in these areas I helped the organisation to put in place processes for elaborating requirements and features they wanted to build so that the development team could use them effectively. I also helped them to formalize some of the ways of working across the application lifecycle so they could be reused on other projects.

I also helped the organisation to understand how they should be supporting and monitoring BizTalk and to understand the roles different tools such as SCOM and BizTalk 360 can play into their support capabilities. We put in place things like a wiki to communicate operations issues and processes between development and production support.

After 3 months the organisation was at the place they needed to be to begin to deliver BizTalk projects successfully.

### 8 MONTHS LATER

After 8 months from the initial BizTalk Maturity Assessment we updated the assessment and the graph below shows the results.



The results show that in almost all areas the organisation is now in a good place to be able to successfully use BizTalk in their organisation and to be very confident about the things they do with it.

One key point to note from this graph is that not every category has a survey question at every maturity level so for example in development there currently are no survey questions in the optimizing level.

The organisation is now pretty mature in most areas but the key thing they need to look at now is around people. The organisation has some partnerships in place with contractors or external companies which will help them do development and support but they may want to develop their in-house capability in these areas as it was still weak. This is not an essential thing to do because the organisation might be completely happy with this model but having no internal people with BizTalk skills in architecture, development and support does leave them exposed to a degree and they could get better value for money by having at least some internal capability.

### CATEGORY LEVEL SUMMARY

The below table shows the overall improvement in the percentage score in each area.

Area	Initial	Managed	Standardized	Predictable	Optimizing
Architecture	0 - 50	0 - 80	0 - 100	0 - 75	0 - 66
Deployment	0 - 100	0 - 100	33 - 100	0 - 100	0 - 100

## *BizTalk Maturity Assessment*

<b>Development</b>	100 - 100	N/A	0 - 100	0 - 100	N/A
<b>Infrastructure</b>	0 - 100	N/A	33 - 83	0 - 66	N/A
<b>Methodology</b>	N/A	0 - 100	0 - 66	0 - 100	N/A
<b>Monitoring</b>	N/A	0 - 75	25 - 75	0 - 100	N/A
<b>People</b>	50 - 50	0 - 40	8 - 53	N/A	0 - 50
<b>Requirements</b>	0 - 100	N/A	0 - 100	0 - 75	N/A
<b>Support</b>	N/A	34 - 92	0 - 88	0 - 80	0 - 100

## **SUMMARY**

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Hopefully you can see how the BizTalk Maturity Assessment would help you to understand where your organisation's BizTalk capability is now and some of the areas you can look to improve. The overall aim is to help you have the best chance of delivering successful BizTalk projects.

The maturity assessment tackles the problem of how do you assess and manage your maturity if you can't accurately measure it?

The maturity assessment is also a great way to keep on top of your capability and I would encourage an organisation to re-evaluate their capability against the latest assessment on a regular basis (perhaps 3-6 monthly). This would ensure you're keeping on top of things but also keeping up to date with changes in the industry.

## **ABOUT THE AUTHOR**

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Michael Stephenson is a UK based integration specialist who has worked with many consultancies and customers delivering integration solutions based on Microsoft technologies such as BizTalk and Windows Azure.

Michael is heavily involved in community activities such as the UK Connected Systems User Group and speaking at events across Europe. Michael has also been a Microsoft Integration MVP for the past 5 years.

Blog <http://www.geekswithblogs.net/michaelstephenson>

Linked In <http://uk.linkedin.com/in/michaelstephensonuk1>

Twitter [@michael\\_stephen](https://twitter.com/michael_stephen)

Website: <http://connectedsystemsconsulting.sharepoint.com>