

# BESTiR



## JOB SCHEDULING AND REMOTE EXECUTION FRAMEWORK

*Bestir builds a Scalable Job Scheduling and Remote Execution framework to dramatically improve Client's IT utilization*

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

Our client is a reputed Design, Engineering & Consulting company in the Supply Chain and Logistics domain. Highly qualified supply chain analysts use various proprietary software applications to analyze and generate reports and provide advice and consultancy services for their customers. These applications are of various types - Windows applications, Console applications, Web applications etc.



## CHALLENGE

Client's IT team was severely strained with the following problems:



Provisioning different applications for different users for each project.



Poor Asset utilization as some of the applications cannot be run simultaneously



Loss in Analysts' productivity as machines were overloaded for hours or days during analysis of millions of rows



Licensing problems due to installing various software needed for the applications in multiple machines



## BESTIR SOLUTION

Bestir conceptualized and built a remote job scheduling, queueing and execution framework to eliminate the need to install applications in the user's machines. The framework enabled the applications to be installed in remote Servers (nodes), thus freeing-up the IT team from provisioning and licensing issues and at the same time, freeing up the analyst's machines from the heavy load of applications.

*Architecture included:*

- A combination of Dotnet based applications – Web applications, Windows services, Webservices,
- One framework server for user, job and communication management and many nodes.
- Flexibility to add/remove or upgrade nodes based on work load.
- Daemon Programs to take care of Queuing & Node availability checking
- Browser based simple UIs for the analysts to queue up a job and to download outputs
- Notifications for the users on job start, error or completion.

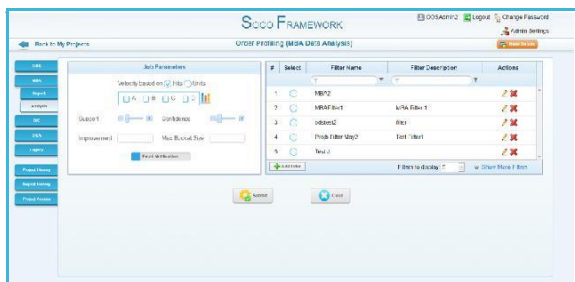
Bestir designed, built and installed the framework for the client. Bestir also re-designed the various applications used by the client to make them framework-enabled, so that they can handle remote invocation, status reporting and push outputs to the Server

*The solution gave the following benefits*

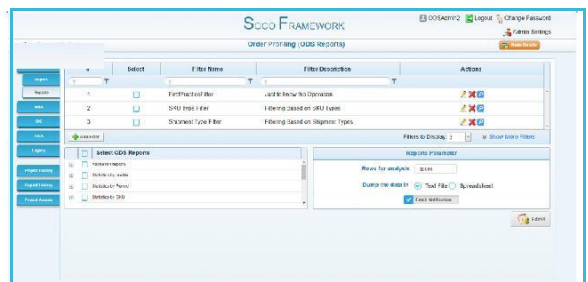
- Allowed admin(s) to install the applications in one or more designated servers
- Managed job queue and execution to optimize resource utilization
- Facilitated Users to submit job requests from remote using browser interface
- Facilitated Users to retrieve the job outputs, reports using browser interface.
- Put the nodes under full control of IT teams such that they can be added, removed or changed as per demand

Job #	Tool	Submitted by	Progress	Elapsed Time	ETC (D:H:M:S)	Job Status	Action	Node
7646	Orderprocess	ODSAdmin2	100%	00:00:13	31:02:05:26	COMPLETED	[Icons]	system3
7645	OdsDataImportTools	ODSAdmin2	100%	00:01:51	6:06:11:52	COMPLETED	[Icons]	system3
7641	Order Commonality tool	ODSAdmin2	100%	00:00:31	0:00:00:00	COMPLETED	[Icons]	system3
7640	ODSReportsandCharts	ODSAdmin2	100%	00:00:34	0:00:00:00	COMPLETED	[Icons]	system3
7639	Orderprocess	ODSAdmin2	100%	00:00:8	31:02:05:26	COMPLETED	[Icons]	system3
7638	OdsDataImportTools	ODSAdmin2	100%	00:01:41	6:06:11:52	COMPLETED	[Icons]	system3
7637	OdsDataImportTools	ODSAdmin2	100%	00:01:28	6:06:11:52	FAILED	[Icons]	system3
7636	OdsDataImportTools	ODSAdmin2	100%	00:01:53	6:06:11:52	COMPLETED	[Icons]	system3
7635	Orderprocess	ODSAdmin2	100%	00:00:18	428:17:36:1	FAILED	[Icons]	system3
7634	Orderprocess	ODSAdmin2	0%	00:00:8	428:17:36:1	FAILED	[Icons]	system3

Job Status Dashboard



Job submission page



Job submission page for Report generation

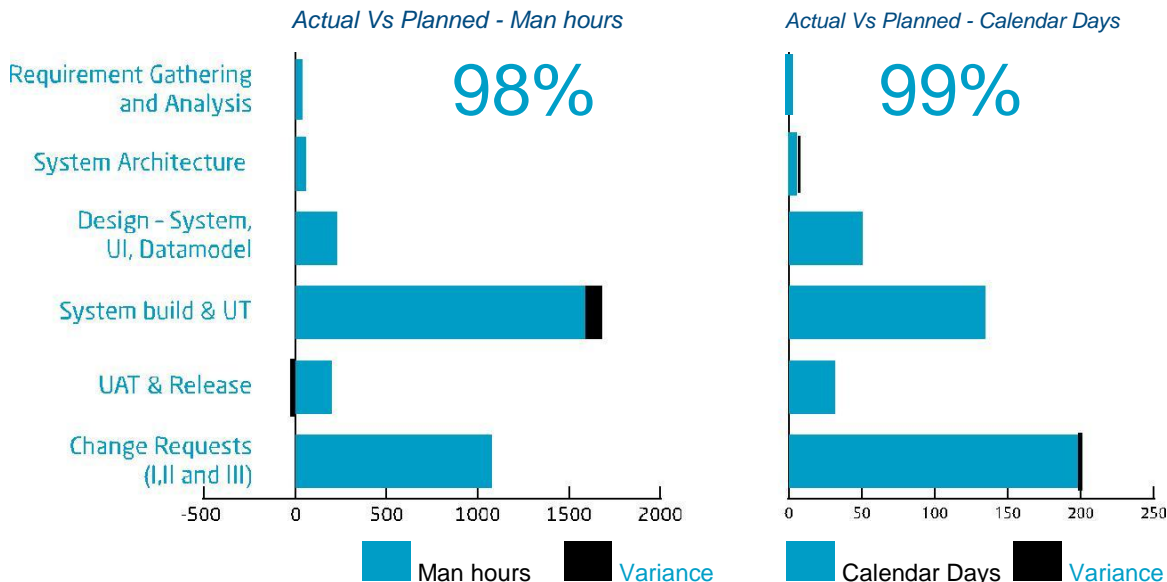
PROJECT PROFILE:

Type of DotNet Project	Client/Engagement	Size	Industry	Users	Maintenance
Custom Development	Architecture, Design, development and Support	40 man months	Supply Chain Management (SCM)	Business Analysts, IT Managers	By Steadfast
Technology/Tools	Microsoft Technologies: ASP.NET, C#.NET, SQL Server 3rd party Tool: Devexpress, Case Studio (Data Model) Project Tracking/Monitoring Tool : JIRA, Active Directory				

KEY BUSINESS BENEFITS

- Reduced IT maintenance needs, issues and increased productivity as Single Platform supported the operational needs of all the analysts.
- Eased IT Provisioning (hardware, software, users) for each of the project
- Reduced IT Hardware & Software costs as a small number of servers and databases could cater to the same needs.
- Reduced security issues by giving project level access to the required users alone.
- Reduced Licensing costs and potential violations since IT team had to install required licenses and software only on the servers and not on every single machine
- Scalable and flexible system to cater to future increase in the number of applications, number of users and different types of applications
- Improved Analyst's productivity as their machines were freed from application execution
- Improved resource utilization as Framework took care of Queuing and scheduling
- Improved Analysts productivity as they were no longer tied to their workstations and could submit jobs, access outputs from anywhere using a secured connection and a browser

**PROJECT METRICS**



**ABOUT US**

WE ARE A  
**40**  
PEOPLE

We are a 40 people boutique software consulting company. We design and implement software solutions to real world business problems.



Our vision is to become a 100 people company by 2020, operating from India, with an average revenue per employee of USD 100,000 P.A.

Led by a team of 3 senior technocrats and 6 mid-level project managers we have the right mix of resources to take up projects in the range of 10 people months to 100 people months.

Our current technical skills are in Salesforce, NetSuite, MEAN and Microsoft Technologies. For skills other than these, we will outsource the coding part to our vendors in India while taking complete responsibility for the project design and delivery.



**ABOUT YOU**

If you are a sophisticated, market facing company with a need for designing and implementing software solutions to solve real world business problems, or if you are a Software Service or Product Company in the US, looking for a reliable and committed long-term partner, you have come to right place. We are looking for clients whose annual software budget is in excess of USD 100,000.



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