Acceptance and Change De-risked

Case Study

BuildMonkey
http://www.buildmonkey.com

Table of Contents

Summary

Ericsson were engaged as the prime contractor by T-Mobile to deliver a 2 million user mobile ISP platform costing in excess of £30million.

The platform was built on Sun hardware, with a highly-available virtualized network infrastructure, and iPlanet server software with a significant amount of custom code.

The complexity of the installation, and the high interdependency of its components, caused significant risk to the project success whenever anything was changed (such as new application code, network switch configuration, or security settings).

This case study demonstrates how Ericsson were able to massively reduce the risk, and cost, of such changes through the use of the Deployment Verification System from BuildMonkey.

The Project

In 2001, T-Mobile embarked on the construction of a 2 million user mobile ISP platform to provide internet and portal services to its subscribers and engaged Ericsson – arguably the market leader in mobile telecoms infrastucture – to design and implement the new system.

Ericsson, in its role as prime contractor, engaged with a number of subcontractors and partners – including Sun Microsystems – to deliver the project, which was based on its highly successful User Service Centre (USC) architecture.

The timescales for the project were aggressive, since all of the mobile operators in the UK were involved in a rush to deliver mobile ISP services to their subscribers in order to gain competitive advantage.

The Ericsson USC architecture was laid atop the SunTone architecture for highly available and scalable networks, and the end result was an incredibly complex infrastructure to support the applications running on top of it (Mail, Calendar, web services, databases, SMS gateways and application servers).

The Problem

Fixed Price, Fixed Deadline

Ericsson were engaged on the project on a fixed-price basis, and had engaged a number of its suppliers and subcontractors on T&M terms. This caused a considerable pressure on Ericsson to reduce the time for delivery.

Ericsson were keen to ensure that their reputation for quality and timely delivery of telecoms infrastructure was maintained, as well as their profit margin.

Target Platform Complexity

The target platform consisted of over sixty servers, plus a similar number of network devices and each of these components depended on a number of other components.

This complexity, and risk of adverse symptoms in the event of changes, required strict configuration management and change control procedures – which obviously run counter to the commercial need to deliver quickly (both for Ericsson as the supplier, and for T-Mobile to capitalise on the mobile ISP services in the marketplace).

The complexity problem became even more acute whenever changes to the platform were necessary:

- Code drops;
- Server patching;
- Security policy changes;
- Network routing changes;
- Functionality changes and enhancements;
- Defect fixes in custom application code;

since changing any one of these could cause unexpected symptoms to appear elsewhere in the environment.

Ericsson were very keen to make such changes with minimal risk to the stability of the platform, and to do so in a way that would not affect the very tight project timeline.

The problem, then, was how to reconcile these two seemingly conflicting goals?

The Solution

Fixed Price, Fixed Deadline

Goal: Ericsson were keen to ensure that their reputation for quality and timely delivery was maintained, as well as their profit margin.

By engaging specialists, such as Nemean Technology, to manage the integration phase of the project, Ericsson successfully de-risked this activity and was able to significantly reduce the cost, and uncertainty, that is normally associated with integration.

Target Platform Complexity

Goal: Ericsson were very keen to make such changes with minimal risk to the stability of the platform, and to do so in a way that would not affect the very tight project timeline.

By using the Deployment Verification System (DVS) developed by Nemean Technology, Ericsson were able to determine – instantly – whether the implemented changes had had the desired effect without any adverse side-effects.

The Deployment Verification System provided an automated regression capability that could be run before and after any changes were made, and display the results in a traffic-light format.

Project management knew – instantly – whether:

- The success criteria of the changes had been met;
- Any adverse side effects had been introduced
- What, if anything, needed to be done to rectify any problems

and were able to detect any problems as soon as they occurred, when the change could be rolled back.

The Result

By using buildMonkey software and services from Nemean Technology, Ericsson were able to successfully manage subcontractors on time and materials whilst they were being paid fixed-price – ensuring that they turned a profit.

About BuildMonkey

BuildMonkey are the market leaders in Build, SCM and Deployment.

Formed in 1999, and with many Fortune 500 and FTSE 100 blue-chip clients, we are the original and the best.

All of the concepts described in this paper have been encapsulated in a suite of off-the-shelf tools and associated processes to facilitate rapid implementation of the Best Practices set out in this paper.

We are passionate about solving the problems which plague software development. We know that, with very little effort, it is possible for software to be delivered on-time, on-budget and free of defects.