

# Modernising post-privatisation legacy IT



## Case Study

### Challenge

A large systems integrator had spent four years delivering a new system as part of the national transport infrastructure.

The system, which performed a critical function distributing payment to numerous service providers, had been live for nine months when Erudine was engaged.

The SI's approach to the original legacy system was to add a new level of interaction – in this case, complex database schema – which allowed changes to business processes. However, because the schema were so complex, any changes required extensive testing – and thus carried a significant cost.

With limited access to domain experts, Erudine was required to clone the original legacy system, with 100% accuracy, to a system which could implement the changing business processes without the cost and time penalties incurred by traditional technology.

### The Erudine Solution

The Erudine Behaviour Engine (EBE) was deployed to reverse engineer the legacy system's behaviour, without intrusion.

EBE captured the existing system's input and output data, amounting to more than 1m scenarios, and with minimal input from domain experts a 'clone' system was produced.

The modernised clone was then able to be evolved, without risk, to incorporate new business processes and removing the need for the additional database layer.

### Benefits

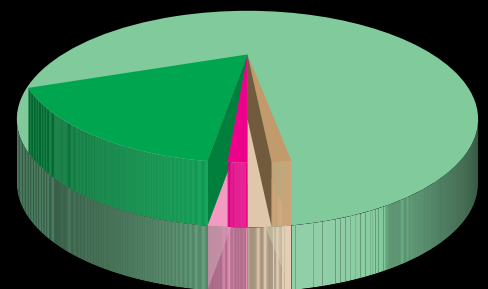
Compared to the six months required by traditional IT approaches, using EBE a full replacement was delivered in six weeks. This translated to a cost saving of 80%.

EBE identified that 0.056% of cases were the results of bugs in the original system, which EBE highlighted and could then be rapidly addressed. Prior to the use of EBE these bugs were undiscovered.

The transaction time of the system was improved twelve fold, from eight transactions-per-CPU-per-second to 100 transactions-per-CPU-per-second. This enabled the client to reduce the IT infrastructure required to fulfil the service, delivering lower hardware and software costs going forward.

## Project Highlights

### Erudine Costs v Traditional Costs



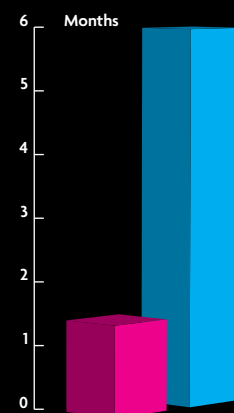
#### Erudine Costs

- GUI
- Behaviour
- Database

#### Traditional Costs

- GUI
- Behaviour
- Database

### Erudine Time to Market v Traditional



- Erudine
- Traditional