Field Forecast and Plan

21st century resource planning
Background

Time cannot be stored, and thus every hour that a resource is not utilised optimally is lost forever. Accurate Resource Management is thus critical to a company’s performance and profitability and in today’s competitive business environment, it is indeed crucial that a company manages its resources efficiently and effectively if it is to remain competitive.

Therefore to avoid under or over utilisation of resource, BT has developed an Automated Resource Management System (ARMS) which manages the resource management processes of Forecasting, Capacity Planning, Deployment Planning, What If Scenario Modelling and Multi Patch working. At the core of ARMS are patented Artificial Intelligence (AI) and Operations Research (OR) techniques.

ARMS was developed by BT and will reduce its cost overheads whilst at the same time gaining control over its Field Force and Task volumes. BT’s need for ARMS was based around varied and demanding hours of service for its customers whilst ensuring that its own resources could overlay this and also change when needed. At the same time the products in use were changing and increasing in number and diverse skilling levels were being applied to lower the training costs.

BT also had no generic Resource Management System in place and therefore had no generic MIS or Single Truth. This function had been handled by a range of processes and functions on a local basis, and in the reactive time frame of the day before or even on the day.
In the short term ARMS will be used to resource 24,000 Field users in BT Retail and Wholesale across multiple disciplines covering Taskforce users, Field Service and Controls/Resource Management. It is planned that this will then expand to include BT Network Build, Strategic Resource Management, Call Centres, Logistics, Appointing and eventually even customers.

ARMS covers the process functions of:
- Forecasting Tasks and Resources
- Capacity Planning
- Deployment Planning and Implementation
- “What If” Scenario Modelling
- Collaboration - Regional Cross Patch working
- Application of standard business rules
- Single Truth of Management and Business Information.

ARMS successes
- Winner of the award for technology exploitation, BT Brightstar and Enterprise venturing technology and entering award 2002
- Euro - the Association of European Operational Research Societies, Excellence in Practice Award Finalist 2003
- British Computer Society Technology Awards Medallist 2004

ARMS benefits for BT:
- A resource planning system which is based on BT’s iOpt optimisation toolkit for modelling and solving combinational problems and generates workforce capacity and deployment plans not achievable in a manual environment
- A resource distribution system which employs multi-objective optimisation and intelligent agent techniques to balance resource across different geographical areas. Allows national resource planning/balancing of the resource and encourages collaboration between units
- A national and generic standard rule set applied to the resource management process nationally across all of BT field operations with ‘End to End’ wrap visibility between all spheres of operations, from field technician to Operations Director single view and one truth
- Allows optimum resourcing to ensure on the day the right person is in the right place at the right time to do the right task with the right skills
- To eliminate manual intervention in the resource management process all the way across the resource process
- To reduce the manual intervention in Work Allocation through refinement of the on-the-day deployment of resources
- The ability to what-if for both Operations, Sales & Marketing, QPB, overtime, contractors, not previously available as an option in a manual environment
- Identifies both short and long term training requirements by resource(s) or geography.

How can BT help?
The team that successfully achieved the transformation of the BT Field Engineering workforce has been brought together and is available to help you with the implementation of a Field Force Automation solution within your organisation. The areas we specialise in are:
- Project, change and implementation management
- Business case preparation
- Process re-engineering
- Resource management
- Work allocation and dispatch
- Mobile device selection
- Mobile networks
- Field organisation
- Field engineering management
- Attendance management
- Duty of care
- Consultancy
- Full support wrap.
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