

# THE POWER T

SOME CLUED-UP ORGANISATIONS HAVE TURNED THEIR IT DEPARTMENTS INTO PROFIT CENTRES. GREER HAHN LOOKS AT HOW ONE OF THEM, VOLVO IT (UK), MONITORS ITS EXTENSIVE iSERIES NETWORK

➤ For IT managers, the ceaseless journey towards optimal systems performance is a well-travelled path fraught with obstacles. They must navigate their way across terrain both familiar and unexpected in all conditions, without ever stopping, and, what's more, they carry up to and in excess of 11,000 passengers who expect nothing less than the smoothest of rides. Mission impossible? That depends who you put in the driving seat.

Volvo IT (UK) operates a powerful network of multiple iSeries machines spread across two main datacentre sites at Daventry and Warwick; managing the performance generated by this network is integral to keeping the whole show on the road. The systems are managed on behalf of the UK's Volvo Group, independent dealerships and also individual external customers such as the Nationwide Accident Repair Services plc, Britain's

largest crash repair specialist. Sales consultant and member of the business development team, Alan Knox, agrees this unusual mix of 'customers' sets them apart from typical outsourcing operations. He says: 'We're in a unique position as both user and provider, so there are no illusions about external customer expectations, our priorities are so similar – we expect nothing less than the best ourselves.'

### KEEP ON RUNNING

Ralph Arnaboldi, Volvo IT's datacentre team leader, explains the importance of keeping the machines running at optimum performance: 'We have thousands of people depending on these machines – from the managers in the office to the shop floor workers,' he says. 'Maintaining 24/7 availability is crucial. If a machine was to fall over in the night, potentially all those people could be prevented

The screenshot displays the QSystem Monitor interface for a Primary Dev System (GBCCS004). It features several panels:

- Map View:** A network diagram showing connections between 'The Internet', 'Internet Center', 'PTF Client-wp', and 'Primary Dev System (GBCCS004)'. A 'Production (GBCCS000)' node is also visible.
- Primary Dev System (GBCCS004):** A bar chart showing CPU usage for various components: CPU (75%), ICP (13%), AUX (0%), AM (0%), W (0%), AI (0%), MCH (0%), NDB (0%), BSY (0%), RSP (0%), TON (0%), IJ (0%), CPT (0%), JBS (170%), and BAK (88%).
- CPU usage for GBCCS004:** A pie chart showing CPU usage breakdown: 0.0% Inactive CPU, 0.0% Batch CPU, 0.0% Selected, and 94.0% Free CPU.
- Job List:** A table listing active jobs with columns for Rank, CPU, Job-Number, User, Job-Name, Function, Type, and Priority.
 

Rank	CPU	Job-Number	User	Job-Name	Function	Type	Priority
1	1.96%	22753	MSM	GBCCS004	Program: MONJOB	Batch	005
2	1.95%	22753	RATCHPR	MSM_JOB005	Delay: 120	Batch	020
3	0.99%	22753	MSM	MSM_JOB002	Delay: 120	Batch	020
4	0.96%	22752	MSM	MSM_JOB003	Delay: 120	Batch	020
5	0.10%	22748	QSYS	QSPURANT	QLSPLC	System	033
6	0.08%	22783	QTOP	QTRID0853	Program: QTOPSRVR	Batch	050
7	0.04%	22748	QSYS	QPPFADU	System	033	
- System Information:** Details about the system, including Serial Number (4414FCA), System Type and Model (9401 150), PTF Level (Q147), PTF Install Date (Sat 22 Jul 2000), Main Storage Available (120 Megabytes), and Partition Information (Number of Partitions: 1).
- Production (GBCCS001):** A line graph showing system performance over time.
- Production (GBCCS001):** A bar chart showing CPU usage for various components: CPU (75%), ICP (13%), AUX (0%), AM (0%), W (0%), AI (0%), MCH (0%), NDB (0%), BSY (0%), RSP (0%), TON (0%), IJ (0%), CPT (0%), JBS (170%), and BAK (88%).

QSystem Monitor shows a real-time view of system components

# TO PERFORM

from getting down to work the next morning. A lot of the systems we maintain are real money-earners for our customers and any number of their business operations can directly rely on the high availability of the systems – for example, if they can't order parts or service and maintain the vehicles that distribute the parts around the country, they're not making money – simple as that.'

The backbone supporting their requirements is made up of what Volvo terms as a 'standard operating environment' (SOE). Richard Trundle, IT operations and technical manager, explains: 'An SOE is a list of preferred products, standards and procedures that all interlink to help produce optimal performance from the network and ensure each particular area operating an iSeries is covered. It's our way of standardising the way we manage machines and we extend that high-level standard across the board, not just for our Volvo machines, but also for our external customers.'

## QSYSTEM MONITOR

As part of their SOE for the Volvo Group and external customers, Volvo IT (UK) uses QSystem Monitor, from CCSS, for system performance monitoring and reporting across their iSeries network. The fully graphical, real-time central view of system performance is relayed from a central PC to a panel of large TFT screens in the operations monitoring room, providing instant visibility and accountability for any threats to system performance. In the event of an exception condition occurring on one of the systems, a performance monitoring bar will flash red on the screen, prompting the operator to click on it and drill down to identify, for example, the top ten users. This means adverse performance conditions can be resolved instantly.

Typically, Volvo IT (UK) monitors for their four key performance parameters: response time, disk storage, number of jobs on the system and CPU usage. The solution allows for up to 38 system

components to be monitored, including user-defined choices, such as particular lines or subsystems. One of the most significant uses of QSystem Monitor within Volvo's operations is the service level agreement (SLA) feature. Through the Management Summary Reporting Module, SLAs can be created instantly. Detailed analysis of any given period can be shown with 'drill-down' capabilities to identify how performance or system components, such as internal response time, disk utilisation and processor utilisation, were being made use of at peak times. The SLAs produced will play a key role in managing the systems of their biggest external customer, Nationwide Accident Repair Services. Knox says: 'We put a measure on SLAs and they form part of the total agreement and then, once having set that, we can then set the thresholds and set the automatic reporting.'

Trundle also uses QSystem Monitor in his core capacity planning duties to highlight ongoing trends. He says: 'Last year we had to decide whether to take the risk of upgrading an application on a particular machine which was running a little bit tight, so we used the data from QSystem Monitor to judge if there was enough space available.' The reports have also proved effective in clarifying trends to colleagues at other sites. Should a system be using excessive disk space, instead of liaising with colleagues continually, operators can produce regular weekly statistics in the form of a graph to illustrate the ongoing trend. The graph can be defined according to disk space used by library, attribute, owner, application, and last used. Through the historical information, operators can also spot isolated instances that have no significant impact on long-term capacity planning.

As Volvo IT (UK) travels down the road to expanding its external business operations alongside its group developments, more pressure will be placed on its resources, but the standard operating environment they have created means this is a journey they can be sure will go the distance. ■

