

SENATE STANDING COMMITTEE ON LEGAL AND CONSTITUTIONAL AFFAIRS  
FEDERAL COURT OF AUSTRALIA

**Question No. 37**

**Senator Barnett asked the following question at the hearing on 25 May 2009:**

In relation to the consultancies for the market analysis and evaluation of SAN storage solutions and the eLodgment system vulnerability assessment, provide relevant particulars for each. Provide an executive summary of each report.

**The answer to the honourable senator's question is as follows:**

In relation to the consultancies for the market analysis and the evaluation of SAN storage solutions, the relevant particulars and an executive summary are provided in the attached diagrams.

In relation to the eLodgment system vulnerability assessment, the report is as follows:

**STRATSEC** have been engaged to undertake the following two part project in relation to the Court's eLodgment system.

**Access to Network Vulnerability Assessment**

This review assesses the security environment in which the eLodgment application is deployed. The focus is on the operating systems management; patch management; user and service account management; user rights management; logging and auditing controls; disaster recovery; the use of encryption; and the movement of code from development to production.

**Application Vulnerability Assessment**

Internet applications such as eLodgment are susceptible to external compromise due to incorrect configuration or a weakness in coding practices. Data might be exposed to unauthorised users or possibly provide a stepping stone to the Court's internal network. This review will examine the application logic and developed code for possible weaknesses that might be used to circumvent the implemented security controls.

It is expected that this work will be completed by the end of June 2009 and a copy of the executive summary will be then provided.



## Scope and Objectives of Engagement

***The objective was to conduct a market appraisal of select Storage Area Network (SAN) vendors and summarise solutions provided by them***

Scope and Objectives of Engagement	
<b>Objectives</b>	<ul style="list-style-type: none"><li>• Assess the market for off the shelf SAN solution vendors.</li><li>• Determine SAN solution offerings provided by vendors, functionality and benefits provided by them and local consulting and support arrangements.</li><li>• Summarise all gathered information for use within the SAN procurement process for the Court.</li></ul>
<b>Activities</b>	<ul style="list-style-type: none"><li>• Assess the market for leading SAN off the shelf solution vendors</li><li>• Jointly, agree with the Court a list of vendors to perform detailed analysis on</li><li>• Analyse and research each selected SAN vendor for:<ul style="list-style-type: none"><li>• Solution offerings</li><li>• Features and benefits provided by those solutions</li><li>• Consulting and support arrangements for those vendors in Australia</li></ul></li><li>• Document information gathered from each chosen SAN vendor</li><li>• Review the findings of the market analysis with the Court's engagement team</li></ul>



## Executive Summary

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Deloitte was commissioned to conduct a market appraisal on off the shelf solutions from Storage Area Network (SAN) vendors at the Federal Court of Australia. The review was conducted between the 18<sup>th</sup> of February and the 5<sup>th</sup> of March 2009.

This report outlines the results from the appraisal and subsequent analysis. Independent reviews were conducted with an agreed list of vendors viz. Hitachi Data Systems, Netapp, IBM, EMC and HP. Broadly, the findings can be summarised as follows

### Results Summary

- **SAN Vendor Landscape** The landscape for SAN vendors is rich and competitive. Standard offerings come bundled with various in built features in cases i.e. Capability for drive types (FC, SAS and/or SATA), drive enclosures, storage controllers with in built cache, host ports (2GB/s to 8 GB/s), Premium (24x7) support, Installation costs, etc. Differences between vendors seem limited to niche features like Active/Active support within the SAN Chassis, integration of GUIs with tools like CommVault, and RAID-DP which delivers improved RAID-0 disk performance.
- **Optimal and Cost Effective SAN Solution for the Court** The appraisal process demonstrated that the Court needs to define a clear set of mandatory and optional requirements whilst specifying the short, medium and long term view and role of the SAN within its network infrastructure. Such requirements will help chosen vendors respond accurately and enable proper comparison between them.
- **Next Steps** This report provides detail on the offerings of vendors who were reviewed. It also provides comparison of suitable offerings. The reference architectures and pricing used for comparison are not completely complementary. It must be remembered that the comparison does not replace a thorough process as enforced through the RFT which needs to include a comprehensive statement of requirements and SAN architecture defined as part of it. This will enable simpler and more direct evaluation of vendor offerings.