HM Land Registry

CDCAT® Case Study

About CDCAT®

The Cyber Defence Capability Assessment Tool (CDCAT®) is a comprehensive way for organisations to assess their existing cyber defences, identify vulnerabilities and provide a road-map for improvements that should be made.

Its underpinning methodology was developed by the Defence Science and Technology Laboratory (Dstl), for the Ministry of Defence (MOD). Dstl is a government organisation dedicated to ensuring that innovative science and technology contributes to the defence and security of the UK.

The Background

HM Land Registry is an organisation with a very mature information security environment including certification to ISO27000. However, due to the increasing number of high profile information breaches reported in the press their technology department were still being challenged by the board of directors around their cyber defence capability. As a member of the Critical National Infrastructure (CNI) HM Land Registry are required to provide a number of assurances to central government as to risk management, governance and control. As part of the government initiatives that were implemented in 2015 to improve the level of cyber defence across government they were required to complete a Cyber Defence Capability Assessment Tool (CDCAT®) assessment.

It was hoped that embracing CDCAT® would provide HM Land Registry with:

- An indication of the level of assurance drawn from its current cyber security implementation

- Identify improvements to the current systems to strengthen the levels of information security against cyber attacks

- Provide a baselined maturity level of cyber security understood across government that could be clearly communicated to external stakeholders and senior managers to promote understanding and security improvements

- An increase in security controls to try and protect from potential breaches.

HM Land Registry has a complex infrastructure containing IBM Mainframes, Microsoft Windows clients and servers, Linux servers as well as outsourced business functions including HR, CRM, and Finance. As part of the CDCAT® assessment HM Land Registry scoped all parts of its infrastructure and supporting services responsible for delivering the Registers of Title, Bankruptcy and Land Charges which form part of the CNI. They assessed this against the top 15 controls highlighted in the CDCAT® 2015 Classic control strategy.

SOLUTION

The process that was used for assessment in comparison to the ISO 27000, ISO 20000 and CMMI assessments was very rapid and straightforward. Initially this entailed a pre-screening questionnaire and a brief 20 minute discussion which was completed prior to the visit by the professional assessor. This initial engagement included some information relating to what CDCAT® was and how it worked and focused at a senior level (establishing the scope of the assessment). This source information was used to understand what areas needed to be included and whether the 2015 Classic control strategy would be sufficient or if additional controls should be included. It also highlighted the subject matter experts that would need to be involved to be able to answer the questions within the full assessment so that their availability could be ensured.

This was then followed up by the full assessment. One major positive with the CDCAT® assessment is that it is quick and repeatable, it looks at clear focus areas for evidence that best practice is being adhered to. HM Land Registry subject matter experts were brought together and the assessment took place in the form of a half day of interviews going through questions against each of the controls. At the point of completion the results could be produced and issued within minutes. Minor amendments were required to the text as with any machine produced reports but limited modification was required to produce the results.

Following the assessment being provided by an external assessor, three members of their information assurance team were trained in the usage of the tool so that they could provide internal assessments on a regular basis. The training in using the tool was also straightforward and involved one day of training to get started. Following this training HM Land Registry have completed an internal assessment with results that have fed into their improvement monitoring. The internal assessment undertaken was also completed within the half day time period.

The assessment with CDCAT® was rapid and easy to complete through an external assessor or using a trained internal member of staff. The output from the system, with minor changes, also gives information at a range of levels that is useful from developers/system administrator level up to board members.

RESULTS

The assessment against CDCAT® provided HM Land Registry with a clear "cyber" focus over and above their existing Information Security maturity. They were given an anonymised ranked scoring table against other government departments which allowed their board to see how we were performing across all aspects of the CNI.

It also provided an indication of the costs of potential losses they could suffer and recommended a number of improvements that they could utilise to improve the maturity of cyber defence within their organisation.

The board were keen to understand the aspirational maturity required and the CDCAT® assessment and associated reports provided the supporting information to support these discussions. Ultimately this led to the sponsorship of a project focused on Cyber Security being executed within HM Land Registry to improve the maturity of cyber defence and provide a greater level of assurance to the board and their external stakeholders. The funding and support for these necessary activities was provided as a direct result of the CDCAT® assessment.

HM Land Registry are in the process of investigating how to use CDCAT® within their business and potentially could utilise this as part of each development project/infrastructure change, to both establish the security that is required and verify that the requested security has been supplied. HM Land Registry have funded a further external assessment as part of the Cyber Security Project to ensure that their improvements are making a difference to their maturity level.

Summary

HM Land Registry believes that the CDCAT® assessment supplies the necessary external challenge to provide non-technical managers and leaders with assurance that the organisation's direction of focus is right and that the organisation is doing the right things in the right way. It pulls together the experts within your business and enables technical information to be converted into something understandable by technicians and managers alike. This drives engaging cyber security discussions relating to the organisation's needs. HM Land Registry have already used CDCAT® assessments again and will continue to do so.

HM Land Registry

FOLLOW US ONLINE

APMG International

@Cyber_APMG

www.apmg-international.com/cyber

company/apmg-international