RAVN Power of Understanding

COWI

Case Study

RAVN Systems revolutionises COWI's SharePoint 2013 Search

RAVN Connect for Microsoft SharePoint 2013 transforms COWI's SharePoint Search, delivering true Enterprise Search and efficient access of all their content.

Situation

COWI are a leading international consulting group with 50 remote locations, specialising in engineering, environmental science and economics. They were planning to upgrade their 23 websites from SharePoint 2007 to SharePoint 2013 and at the same time, implement SharePoint 2013 Search to maximise the full potential of the solution and replace their legacy Enterprise Search solution. SharePoint is an essential component of COWI's infrastructure as it powers their websites, intranet and extranet sites. Having a capable Enterprise Search solution was a critical requirement for the organisation as COWI has millions of documents and knowledge objects globally, that need to be accessed and viewed across the organisation.

Challenges

COWI had several challenges relating to the Enterprise Search project. Frederik Bonde Lykke Nielsen, Senior IT Manager at COWI observed, "There were 3 key issues relating to SharePoint 2013 Search that we wanted to overcome. Firstly we didn't want to physically migrate all documents into SharePoint site collections due to the sheer volume, cost and time it would take, yet at the same time we didn't want to risk excluding content from the Search system. Secondly, not all of our content was within SharePoint, but we still needed our Search system to be able to index all of it. And finally, we are very distributed as a company and the cost of hardware and licences to support a distributed architecture for SharePoint Search was going to be significant, so we wanted to look at ways to reduce that".

Solution

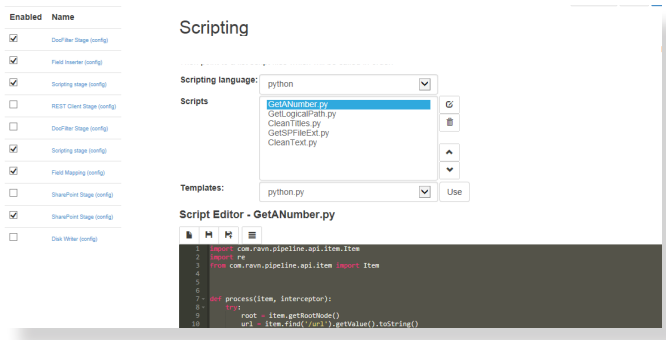
It was vital for COWI to optimise SharePoint Search to its full potential and provide a truly organisation-wide Enterprise Search platform. Nielsen added, "We were presented with the RAVN Connect for Microsoft SharePoint 2013 product and felt it would overcome the challenges we had identified. It deployed a satellite agent at each of our 50 remote locations to distribute the task of content and metadata ingestion and enrichment, as well as providing a flexible, full connectivity layer that also supported non-Microsoft content types. The extracted data was then pushed into our central SharePoint installation, which enabled us to build a single, centralised index of all our content, and get

better relevance ranking across the entire estate. It also allowed us to reduce the physical size of the SharePoint estate by reducing the number of SharePoint Search components, but also by reducing the volume of content ingested into SharePoint itself. We were still able to extend the reach of our SharePoint Search to our 50 remote offices and all non-Microsoft ecosystem content and ensure we had an enterprise-wide repository of information and knowledge".

> ***"We were presented with the RAVN Connect for Microsoft SharePoint 2013 product and felt it would overcome the challenges we had identified".***

RAVN Connect for Microsoft SharePoint 2013 combines RAVN: Pipeline, Preview, Security and Federator products. The Search system wellbeing solution, RAVN Manage, has also been extended to monitor and track SharePoint.

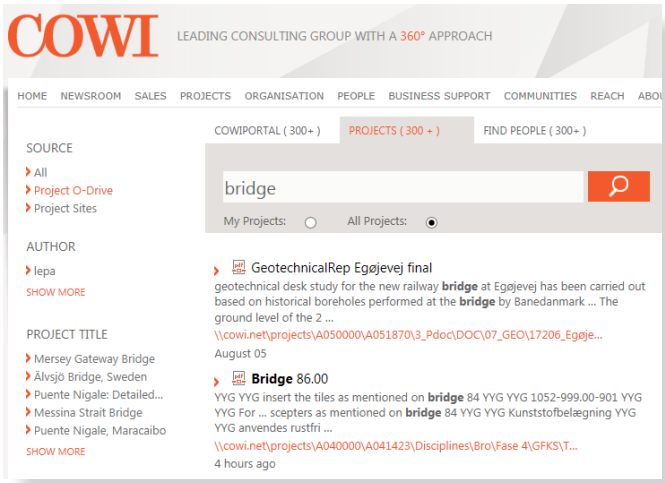
To address COWI's need to connect to a wide range of Microsoft and non-Microsoft contents, the RAVN Pipeline ETL (Extract, Transform and Load) solution provided a framework for managing connectivity to all sources and replaced complicated legacy connector scripts. Nielsen stated "By having RAVN's technology in place, it ensured that as an IT department, we had more control of connectivity and metadata enrichment and would not have to rely on third parties when we wanted to add new content or further enrich metadata. RAVN Pipeline allows us to construct connection jobs through the wizard driven user interface. We can also check how each connector is performing and monitor them as KPIs through RAVN Manage".

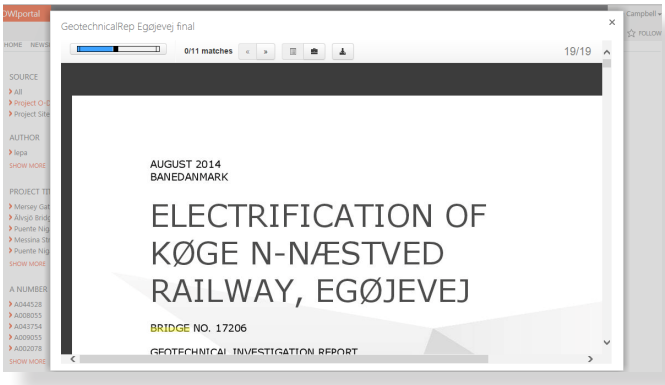


> ***"By having RAVN's technology in place, it ensured that as an IT department, we had more control of connectivity and metadata enrichment".***

Nielsen added. "It was important that when we ingested content from our distributed sources, the correct access controls and permissions were respected. RAVN Connect for Microsoft SharePoint 2013 includes RAVN Security Server, which delivers trans-repository security and ensures security is fully respected at query time. The solution eliminates any need for re-indexing of content should either content permissions or membership of any source or SharePoint security group change. This was important for mitigating security risks to our business and ensuring that across 50 offices, only authorised information was served to any given individual".

The RAVN Preview component allows COWI's users to view content across the entire estate, be it local or remote and whether it is held in SharePoint or not. Users can then validate whether search results are relevant to them, without having to open the binary object in its native application. This allows users to view content even if they do not have the native application, as all content is rendered in HTML format. Additionally, file sizes are small, which has a positive impact on the volumes of data travelling across the Wide Area Network (WAN). Coupled with page-by-page loading and display, the user experience is not impacted by even the largest files.

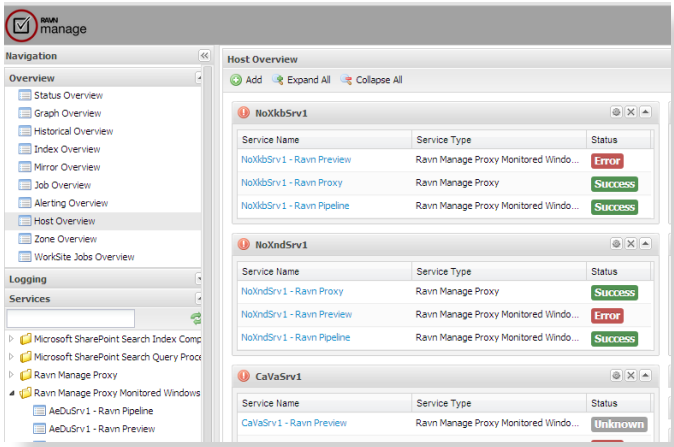


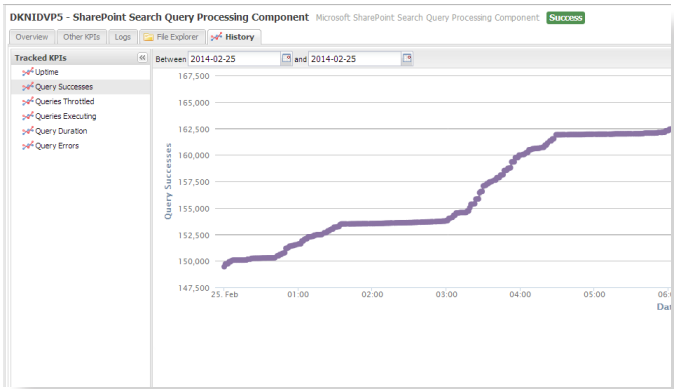


COWI also use RAVN Manage for application-level monitoring of their SharePoint 2013 environment. It provides continuous monitoring, proactive alerting and a 'prevention rather than cure' approach. Nielsen commented, "RAVN Manage monitors all of our Search infrastructure components and alerts us when an out of tolerance condition arises that

could adversely affect the performance of our content collaboration and search infrastructure". RAVN Manage allows COWI to track and alert on key metrics including search queries per second, index queue sizes and any other measure output by the Windows Management Information (WMI) service, also with resource level tracking of the environment. Nielsen added, "We are now able to track how these change over time, which gives us more advanced warning of problems".

> ***"RAVN Manage monitors all of our Search infrastructure components and alerts us when an out of tolerance condition arises".***





Results

Having deployed RAVN Connect for Microsoft SharePoint 2013 across their 50 offices, COWI is now able to connect SharePoint into the broader non-Microsoft ecosystem, whilst supporting their distributed architecture model.

By using the RAVN Connect for SharePoint solution, COWI's central index is incrementally built and maintained. Nielsen added "Our queries now only have to travel from the point of enquiry to the central index and back, which is much shorter in distance than in a distributed, federated environment. This has helped improve the user experience by reducing any query performance delay to the single network link to the centralised index".

Nielsen commented on the RAVN Manage component, "This will enable us to have awareness of actual or impending issues within our Search environment and help us to maintain Service Level Agreements. There is also a reduced administration effort, as we will no longer have to manually check the system is working to full capacity".

The Preview component has enabled COWI users to preview documents outside the SharePoint ecosystem. The hit highlighting feature and hit map quickly shows the user the most relevant part of the document.

Nielsen stated, "The Pipeline component has enabled content from all our locations to be quickly made available to our whole business, which has enabled costs to be reduced over time".

> ***"The Pipeline component has enabled content from all our locations to be quickly made available to our whole business".***

In representative tests across their estate COWI achieved a 57% reduction in initial indexing time of remote content, over 90% reduction in bandwidth usage during indexing and 70% reduction in time to preview, compared with opening content natively. They have also estimated they were able to reduce their physical estate by 12 servers and the associated licences, compared with a distributed Microsoft SharePoint architecture.

Performance Tests and Results

- Time to index remote content into SharePoint 2013 reduced by 57%
- Preview response times cut by 70%
- Network traffic reduced substantially by 90%

Contact

Tel: +44 (0) 20 7566 0000 | **Email:** info@ravn.co.uk | **Web:** www.ravn.co.uk

RAVN
Power of Understanding