

Cyber Solutions

Claims led – lawyer supported

```
package com.ds.ucd.be.becore.solr;  
  
import ...  
  
public final class LocationUtils {  
  
    /**  
     * Parses Point from it's String representation.  
     * @param locationString - String that represents location, as 2 double values split with coma.  
     * @return org.springframework.data.solr.core.geo.Point instance  
     */  
    public static Point parseLocation(String locationString) {  
        Preconditions.checkNotNull(locationString, errorMessage: "Location String should not be null");  
        Preconditions.checkArgument(locationString.contains(","), errorMessage: "Location must be split  
        locationString = locationString.trim();  
  
        if (locationString.contains(" ")) {  
            locationString = locationString.replaceAll( regex: " ", replacement: ",");  
        }  
  
        if (locationString.contains(", ")) {  
            locationString = locationString.replaceAll( regex: " ", replacement: ",");  
        }  
  
        String[] location = locationString.split( regex: ",");  
        Preconditions.checkArgument( expression: location.length >= 2, errorMessage: "Location should cons  
        double lat = Double.parseDouble(location[0]);  
        double lon = Double.parseDouble(location[1]);  
  
        return new Point(lat, lon);  
    }  
}
```



```
@Autowired  
private DefaultCommunitySolrService  
CommunitySolrRepository CommunitySolrRepository,  
CommunitySolrDocumentPopulator CommunitySolrDocumentPopulator,  
CommunityService CommunityService,  
DefaultCommunitySolrStrategy strategy;  
  
@Override  
public void index(Collection<Community> communities) {  
    Collection<CommunitySolrDocument> documents = communities  
        .stream()  
        .map(community -> CommunitySolrDocumentPopulator.convert(communitySolrDocument, community))  
        .collect(Collectors.toList());  
    CommunitySolrRepository.deleteAll(documents);  
    CommunitySolrRepository.saveAll(documents);  
    if (documents.isEmpty()) {  
        logger.warn("No places to index, input collection is empty.");  
    }  
}  
  
@Override  
public Collection<Community> search(String query) {  
    List<CommunitySolrDocument> documents = strategy.search(query);  
    List<Community> communities = new ArrayList();  
    List<CommunitySolrDocument> docs = documents.stream().map(communitySolrDocument -> CommunitySolrDocumentPopulator.convert(communitySolrDocument, community))  
        .collect(Collectors.toList());  
    List<Community> communities = docs.stream().map(communitySolrDocument -> CommunitySolrDocumentPopulator.convert(communitySolrDocument, community))  
        .collect(Collectors.toList());  
    return communities;  
}
```

New technologies bring new risks. The 'One Crawford' approach seamlessly integrates discrete aspects of our business to bring you certainty, within the increasingly uncertain world of cyber risk. Crawford & Company® ensures you remain ready to respond to cyber incidents whenever, and wherever, they occur.

In a recent global risk management survey, the highest rated insurable risks were cyber-attack, business interruption and reputational damage; risks which inevitably are intertwined in practice. It is interesting to note that in a similar survey a decade ago, cyber-attack did not even feature as a risk demonstrating the rapid growth of this particular risk category over recent years. It is not surprising that another survey found that cyber-crime was twice as likely as any other fraud to be identified as the most disruptive and serious economic crime expected to impact organisations in the next two years.



Crawford Cyber Solution

Managing and mitigating a changing cyber threat

The cyber threat environment continues to evolve and change at a rapid pace. There is no greater example of this than profiling the prevalence and evolution of ransomware as threat actors realise they can increasingly profit by targeting and disrupting the operations of a business, rather than simply stealing confidential data alone.

Without a doubt, cyber criminals have become more sophisticated in recent years and now understand the economic pain points for different types of organisations. They are quickly learning how to leverage these pain points to maximise their financial return.

Crawford has been handling all manner of cyber claims well before cyber became the hot topic that it is today. Having dedicated cyber solutions in place since 2015, Crawford has proactively invested to devise, improve upon and deliver a complete end-to-end turnkey solution which is agile in its ability to respond to the complete spectrum of cyber risk, be it a locally-confined straightforward IT breach, or a catastrophic ransomware attack with global consequences.

In the Australian market, with the acquisition of insurance specialist law firm HBA Legal in 2020, Crawford is now fully equipped to provide a unique and unprecedented cyber solution which is claims led and lawyer supported.

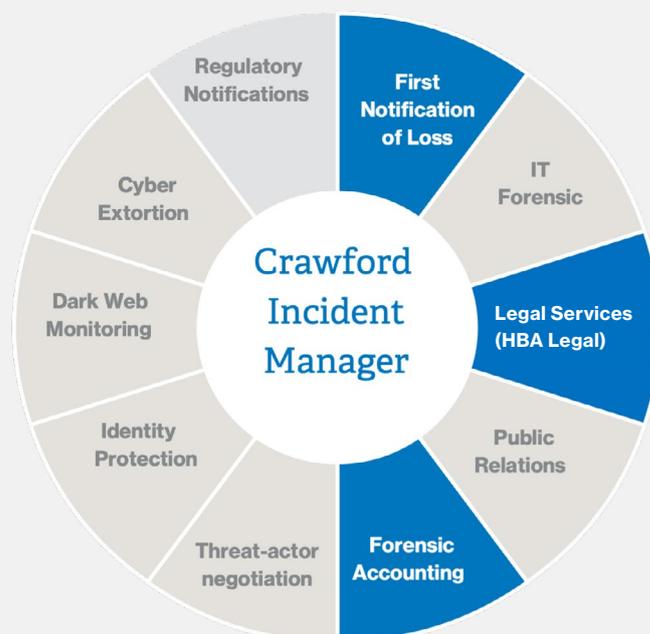
Claims Led – Lawyer Supported

This model combines Crawford's in-house specialist expertise across multiple, complementary areas of the business including claims administration and management, loss adjusting, forensic accounting and technical services, together with HBA Legal's proven track record as a trusted advisor providing legal support.

Crawford has long-established and various claims-led solutions for underwriters, insurers, insureds, brokers, large self-insured companies and government entities, and this now includes our response to cyber claims.



The graphic on the right provides a snapshot of the key features within Crawford's Cyber Solution, showing how we can assist you to avoid unnecessary legal fees, generate savings and drive cost efficiencies.



■ Indicates services performed directly by Crawford

Key features

Get prepared, take control and optimise recovery

- 1 First Notification of Loss (FNOL) services, with experienced claims managers and legal services available 24/7/365. This includes identification and allocation of the risk based on severity, deployment of the Crawford Incident Manager and advice regarding policy coverage.
- 2 Delivery of a cyber incident crisis response with built-in legal support and overview, together with end-to-end claims management as appropriate.
- 3 Professionals with proven expertise in managing cyber claims and advising insureds and insurers alike, across all aspects of the claim to include specialist loss adjusting and forensic accounting services.
- 4 Bespoke claims management software designed to handle a high volume of claims while retaining the agility and flexibility to appropriately manage the full breadth of cyber claims, no matter the complexity.
- 5 Claims-led solution to cyber claims management which cuts down on unnecessary legal and expert fees by tracking and controlling expenditure to ensure your money is judiciously spent and only where warranted and appropriate.
- 6 Recognition of the dual components of cyber incident response services and insurance claims related services, with a bespoke model capable of delivering upon both.
- 7 Scalability in the event of a major multi-jurisdictional, catastrophic or systemic event including the ability to co-ordinate a unified response via Crawford's global reach.
- 8 A comprehensive and best in class panel of experts associated with cyber incident response, including IT forensics, public relations, dark web monitoring and a panel of legal service providers.
- 9 In-built legal services operating in deference to the claims-led model but nevertheless ensuring that nothing is missed and identifying further problems and issues before they arise.
- 10 The assurance of one of the largest independent claims organisations and a solution backed by a £50m professional liability policy.

Claims Manager

Our Claims Handling System

Crawford has developed a web-based iQ designed system providing consistency of approach for claims handlers around the globe. This provides the ability to handle a high volume of claims while maintaining ease of access to 'live', accurate and meaningful management information.

The system is used as the claims handling system by the individual handlers in all countries Crawford operates, and at the same time provides highly flexible, real-time reporting over all territories.

By using the same system throughout the world, we ensure that all claims are handled following the same procedures and capturing the same data.

Our claims system offers:

- Real time data
- Online access to management reports
- Ability to integrate policy structure
- Attach documentation relevant to the claim, such as technical information or expert reports
- Automatic email alerts for specific events



Some examples of cyber claims Crawford has managed around the world

- ✓ An attack on a US operating division of a European corporation, with potential liability and personal data breach implications.
- ✓ A multi-jurisdictional privacy breach spanning 46 countries for a Swedish retailer.
- ✓ A ransomware attack on the UK headquarters and logistics centre for a major European consumer electrical manufacturer.
- ✓ Phishing and spear phishing related incidents conducted in order to access a widely used office cloud based application platform, with tailored responses dependant on data potentially accessed.
- ✓ Data breach of a third party web based portal containing customer information including financial records. Potential liability risk/exposure and damage to reputation.
- ✓ A data breach, subsequent phishing activity and internal fraud leading to the theft of mobile phones over an extended period of time for a major UK mobile phone provider.
- ✓ A breach at a third party supplier/ service provider leading to complex data privacy considerations across 90 jurisdictions for a leading hotel chain/brand.
- ✓ A DDOS and extortion attempt with accompanying data breach on a UK based financial institution.
- ✓ A cryptocurrency malware attack on an international banking organisation.
- ✓ External hack resulting in the unauthorised or fraudulent transfer of funds (involving a live internal investigation) for a European bank.
- ✓ A highly publicised attack, extortion and privacy breach, involving potential terrorist activity on a UK based telecommunications company.
- ✓ A ransomware attack on an outsourced service provider specialising in the provision of operating systems for a wide and high profile client base.

As a publicly listed company (New York Stock Exchange), Crawford is subject to the requirements of the Sarbanes-Oxley Act. Our comprehensive, global training and strict compliance ensures Crawford is regulated and licensed to operate in all of the countries where we offer cyber solutions.

Operating from over 700 offices, we are strategically located to provide a robust response to any cyber claim, regardless of origin. Where we have a need to collaborate (globally or locally), our scale and reputation allows us to build strategic partnerships with true industry experts, enhancing our global value proposition, but critically delivered locally.

To find out how we can help with your cyber needs, in Australia contact:

Graham Peters
Head of Crawford Forensic Accounting Services
+61 412 719 433
graham.peters@crawco.com.au

Lucas Bressanutti
Financial and Forensic Accountant
+61 448 600 557
lucas.bressanutti@crawco.com.au

Jordan Gueli-Quaresma
Financial & Forensic Accountant
+61 428 758 427
jordan.quaresma@crawco.com.au

Nik Stanisic
Legal Team Lead, Cyber
+61 426 822 872
nik.stanisic@hbalegal.com

About Crawford & Company[®]

Crawford & Company (Australia) Pty Ltd solves claim challenges and helps businesses keep their focus where it belongs – on people.



Loss
Adjusting



Third Party
Administration



Managed
Repair



Medical
Management



On-Demand
Services



Catastrophe
Response

9,000 employees | **50,000** field resources | **70** countries | **\$18B+** claims managed annually

Crawford[®]

Crawford & Company (Australia) Pty Ltd
ABN 11 002 317 133 | AFSL 530816
Level 3, 324 St Kilda Road, Southbank, VIC 3006