Kidnap and Ransom Insurance: At an Inflection Point

By gathering and distilling meaning from the metadata that exists in the digital world, insurance carriers can mitigate risk for companies that have globe-traveling executives.
Executive Summary

The number of kidnappings in the world is increasing dramatically, especially with more people traveling to less developed and politically unstable economies. According to some estimates, two people are kidnapped and held for ransom somewhere in the world every hour;¹ each year, an estimated $1.5 billion² is paid in ransom to kidnappers. While kidnap and ransom (K&R) insurance products are intended to reduce financial loss, insurers are grappling with numerous challenges, in the following areas:

- **Prospecting**, due to limited insights for lead identification and targeted marketing.

- **Underwriting**, resulting from a dearth of historical data across a sufficiently large sample set, which makes it difficult for insurers to develop a statistically accurate approach to establishing K&R insurance rates. As a result, K&R insurance products are usually priced high. This is reflected in the low claims ratio for K&R insurance (about 34.3%³) compared with standard commercial lines, which is about 70%. While the K&R claims ratio may never be in line with standard commercial lines, the gap can be bridged by making rates more affordable to buyers. The mobility of the insured across risk-prone areas also poses a challenge for insurers to map patterns and establish susceptibility to perils.

- **Claims adjudication and loss control**, due to a lack of data and standard operating procedures. The risk/security consultants that K&R insurers generally rely on for claims adjudication often charge high fees to customize policies, track clients and provide safety advice.
Conventional K&R marketing, underwriting and loss control methods have proved ineffective for resolving these longstanding challenges. We believe that a new approach – fueled by social, mobile, analytics and cloud technologies (the SMAC Stack), as well as the metadata generated by digital interactions – can enable the K&R insurance industry to take advantage of the vast opportunities to win in this uncontested space.

By harvesting the digital information that surrounds people, organizations, processes and devices – what we call a Code Halo™ – insurers can convert market disadvantage into advantage. This white paper highlights the state of the K&R market, illustrates how carriers can apply Code Halo thinking to reduce kidnapping risk and identifies ways to mitigate risk for K&R insurers that insure companies across the globe.
Understanding the K&R Market

Kidnapping, unfortunately, is one of the fastest-growing organized criminal activities. In fact, kidnappings of foreign nationals increased nearly 100% between 2011 and 2012, the most recent publicly available data on the subject, and the average ransom demand in 2012 was approximately $2 million.

Furthermore, over 80% of kidnapping cases go unreported because they are not made public. Figure 1 depicts the kidnapping threat in countries around the world.
Unfortunately, the underlying drivers for K&R insurance appear vibrant and suggest continued growth despite the best efforts of the international community. Figure 2 offers our analysis of the ransom industry from various perspectives.

### Sizing the Changes in the K&R Insurance Market

K&R insurance is typically organized by reimbursement policies. Companies are legally able to pay ransom for a kidnapped employee, and insurers reimburse the company in its home country. Policies can be sold as an individual product or as coverage under other liability products. Studies have shown that the death outcome in kidnapping incidents is reduced by 88.89% when the victims are insured for kidnaps.

The total K&R insurance market was valued at about $4.37 billion in 2010, with an annual growth rate of roughly 12.25%. Market penetration by traditional insurance carriers is about 11.6%. An extrapolation of this data indicates that the market opportunity size in 2015 is $7.79 billion, from which only $1.05 billion has been accounted for (see Figure 3), indicating an under-penetrated market that demands insurers' attention.

### Applying Code Halo Thinking to K&R Insurance

Market under-penetration in the K&R space is the result of limited prospecting and marketing capabilities, limited underwriting capabilities and limited loss control measures. An inability to resolve these issues has fueled the perception that K&R insurance products are too expensive, deterring customers from purchasing them. Insurers can work toward resolving these issues — and possibly reducing the number of kidnapping incidents — by gathering and applying meaning.
from the metadata that surrounds people, processes, organizations and devices. Through “Code Halo thinking,” insurers can create virtual identities of company executives, their devices and the business activities in which they participate, which can unlock insights that lead to better decision-making.

Consider this typical scenario: Let’s say “John,” who works as a sales executive at a major multinational biochemical company, needs to make travel plans for an upcoming industry conference in Mexico City. He logs on to Expedia and makes his travel and accommodation arrangements, and then schedules several meetings with his clients in that area using the Microsoft Outlook app installed on his smartphone. In the evening, he tweets about his upcoming plans to see if any of his friends will be in the area during the same timeframe.

Once John lands in the Mexico City airport, he checks-in his location on Twitter and Facebook, rents a car and drives to his hotel. The GPS installed on his smartphone provides directions to the route with the least traffic.

Following the conference, John plans to spend his weekend at a beach in Acapulco before returning home. Using TripAdvisor, he identifies the best place to stay and then uses Expedia to book a room at a beach resort.

In this situation, John engaged in numerous activities that involve interacting with his smartphone and multiple social media sites. The information generated by these digital interactions can be distilled to create John’s digital identity - the smartphone app shows his work schedule; the GPS provides his hotel and work location, along with his driving habits; Expedia, TripAdvisor and Twitter offer insight into his upcoming travel and accommodation details. The intersection of all these insights represents a halo of information that an insurer can use to distill strategic insights into John’s risk profile, enabling targeted marketing campaigns, dynamic pricing, automated actions to protect against kidnapping, and reduced risks of paying ransom.

Quick Take

Is Your Organization Ready for Code Halo Thinking?

Insurers can create and cultivate a K&R Code Halo ecosystem and harness insights relevant to their business objectives. In order to assess whether they are ready for such a move, insurers can ask themselves the following questions:

• Does your organization want to make its products readily available to a wider set of customers? Does it want to increase its top line? Does it have an aggressive premium growth target?
  ▶ If yes, then it may want to focus on improved prospecting and targeted marketing for K&R insurance.

• Does your organization want to improve profitability? Is its current loss ratio higher than the industry average? Is there an initiative afoot to increase the affordability of K&R products?
  ▶ If yes, then your organization should increase its emphasis on improving risk assessment and using dynamic pricing.

• Does your organization want to improve its customer service levels? Is the customer service index affecting growth prospects?
  ▶ If yes, then it may want to offer real-time safety alerts by continuously monitoring threat perceptions to customers insured against K&R.

The data required for these focus areas exists in the digital world. Using a comprehensive Code Halo ecosystem, insurers can convert these key bits and bytes into insights and foresights to harness K&R opportunities.

Creating a K&R Code Halo Ecosystem

To get started with such an initiative, insurers should understand two main aspects of the Code Halo ecosystem: the conceptual view and the implementation view.

Conceptual View

The conceptual view answers the “what” question, i.e., what does this ecosystem consist of, including details of the data sources that populate a Code Halo that will generate specific insights (see Figure 4).

Anatomy of a Code Halo Ecosystem

Insights that can be gleaned include the following:

**Insight 1: Travel predictions.** Insurers can identify individuals or employees who are seeking travel insurance, accommodations, car rentals and other similar information (e.g., tweeting about upcoming travel on Twitter) in specific risk-prone countries. Such individuals are high-quality prospects for K&R insurance, and their digital information can be used to develop targeted marketing campaigns based on their threat exposure analysis. The underlying information for these insights may be obtained from lead generators and aggregators (e.g., AgentInsider), quote comparators (e.g., InsureMe, QuoteWizard) and hotel booking websites (e.g., Booking.com).

**Insight 2: Geographical tracking.** Employers can gain insights into travelers’ location and calendar information by requesting their consent to track them through a GPS-enabled wearable device or mobile app. Employees would need to be ensured that the collected data is treated in a secure and confidential manner (see Figure 5 on page 10 for more on this topic). With the help of this data, insurers would be able to provide real-time safety warnings to the insured. The insured’s adherence to the safety recommendations (tracked through GPS or mobile apps) can then be used to assess relevant reductions in the K&R insurance policy premium and enable dynamic pricing. Data
sources include GPS technologies (e.g., geo-tagging, triangulation), customized mobile apps (e.g., TruMobi by Cognizant), and social media monitoring tools (e.g. Salesforce.com's Radian6, Social Mention).

**Insight 3: Associate profiles.** Insurers can build travelers’ personal and professional profiles using social media monitoring tools for better prospecting, marketing and loss control. This will help insurers prepare customized marketing campaigns, track travelers’ whereabouts to provide safety alerts and improve claims adjudication, and detect unknown profile visits on the traveler’s social media pages to prevent possible kidnapping. Social media monitoring tools (e.g., Radian6, Attensity, Social Mention) can be used to gather the underlying information needed for these insights.

**Insight 4: Emergency assistance.** Insurers can capture the last visited location coordinates of the employee when the panic button was pressed in the mobile app or wearable tracking device and send this information to partner security firms in real-time for immediate assistance and rescue operations. This will assist insurers in preventing or quickly rescuing the insured. GPS technologies (e.g., geo-tagging, triangulation) and customized mobile apps (e.g., TruMobi by Cognizant) may be used to develop this capability.

**Insight 5: Employer profiles.** Insurers can build employers’ professional profiles using social media monitoring tools and tracking the contracts and deals won by employers in particularly risky areas of relevant countries using Web crawlers. This will enable the insurer to obtain quality prospects and initiate customized, just-in-time targeted marketing campaigns. The underlying information needed for these insights can be obtained from social media (e.g., Facebook, Twitter, LinkedIn), the company’s website, media/press reports (e.g., industry reports, magazines) and broadcast news channels.

**Insight 6: Zonal risk analysis.** Insurers can assign risk scores to each area/sub-area in a specific region based on the K&R incidents history and current news received (in real-time) from the insurer’s risk or security partners to generate optimal product pricing. These insights can be gleaned from information gathered from the United Nations Office on Drugs and Crime, K&R consultancy firms and security firms.

**Insight 7: Agent profiles.** Insurers can maintain social and professional profiles of K&R insurance agents to better map the agents according to customer issues, profiles and location. The insurance carrier’s internal employee information database can be used as the primary source for developing these insights.

**Insight 8: Product profiles.** Insurers can map existing customer profiles with different product types to identify the best K&R product for prospective customers. The insurer’s internal policy information database and customer information database may be used for developing these sell insights.
Implementation View

The implementation view answers the “how” question (i.e., how the conceptual view can be implemented, and the various components involved). This includes a combination of software and hardware components needed to gather, prepare and assimilate the data, and harness the insights included in the conceptual view. Here’s a closer look at the steps involved:

• Gather data: Several components are required to gather data about the insured:
  > **Mobile app:** A mobile app can help maintain contact with the traveler at all times, which can help insurers understand the risk level of the insured’s potential travel locations (via the calendar tracker) and actual locations (via the geo-tracker). Using these insights, insurers can determine and communicate safe travel zones and routes, and share safety alerts.
  > **Wearable device:** Wearable devices can also be used to maintain contact with the traveler, especially in areas with no/low network connectivity.
  > **Data collection application:** A suite of applications can be developed to integrate all Code Halo sources (described in the conceptual view) and perform the necessary collation, cleansing and correlation of information gathered.

• Prepare and assimilate: Application layers are required to prepare and assimilate the gathered data to enable valuable insights. These include:
  > **A compliance rules engine:** To ensure adherence to data privacy regulations, relevant local laws need to be incorporated in the form of business rules that will be applied to the gathered data.
  > **Data analysis and decision support algorithms:** This includes applications to identify patterns from Code Halo metadata and perform user threat exposure analysis and real-time location analysis.

• Harness: In order to benefit from the insights developed about customers and prospects, insurers need to make the following changes to their application landscape:
  > **Rating algorithm:** The Code Halo ecosystem provides the insurer with better data to predict the probability of loss. Insurers can use this new information to better price the K&R insurance product. Doing so requires changes to the insurer’s ratings engine to enable optimized pricing that is dynamic in nature, based on the threat exposure analysis performed for the insured.
  > **Marketing and sales systems:** The rich data presented by Code Halos must be analyzed by the insurer’s marketing and sales systems to determine and pursue new leads and enable better targeted marketing.
  > **Customer communication systems:** Changes will need to be made to the insurer’s communication systems to enable integration with the mobile app and wearable devices to promote loss control through safety alerts.
Managing Risk

Insurers must be aware of the regulatory landscape, privacy concerns and risks involved with tracking travelers’ physical location, monitoring the information on their smartphones and accessing their social media profiles. Figure 5 describes these risks and their respective mitigation plans.

<table>
<thead>
<tr>
<th>Risks &amp; Concerns</th>
<th>Mitigation Plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Privacy – Location Data</td>
<td>A few states in the U.S. have adopted laws for regulating the use of electronic tracking of employees. Others may follow suit. Employers should only track employees under certain conditions:</td>
</tr>
<tr>
<td></td>
<td>• Use employer-owned devices.</td>
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<tr>
<td></td>
<td>• Obtain prior employee consent and give prior notice.</td>
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<tr>
<td></td>
<td>• Collect only relevant information and keep data secure.</td>
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<tr>
<td>Data Privacy – Internet Data</td>
<td>U.S. regulators are trying to establish stringent data privacy protection laws that would give Internet users more control over their online personal data. Information from external Code Halos will pass through a business rules engine that checks for compliance with regulations such as Federal Trade Commission laws, Do Not Track Online Act 2013, the Electronic Communication Privacy Act, etc.</td>
</tr>
<tr>
<td>Ignorance/ Moral Hazards</td>
<td>Employees may forget or purposefully not carry the wearable device or cellphone. Employees should be made aware of the safety benefits of carrying the wearable device or smartphone. Employers should track location inactivity.</td>
</tr>
<tr>
<td>Data Security</td>
<td>Data collected from different Code Halo sources can be exposed to hackers and malware. Systems should ensure multi-layered data security that follows a defense-in-depth security strategy to protect information from unauthorized access.</td>
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Figure 5

Moving Forward

The need to do business in more innovative ways is rapidly becoming table stakes for insurance providers, and K&R insurers must carefully identify and overcome the challenges to enable this transformational change. Implementing a Code Halo framework requires a comprehensive plan that includes the following steps:

- **People:** Identify leaders of the initiative, as well as a cross-functional team to implement the solution. Prepare internal teams to drive the required cultural and organizational change.

- **Process:** Analyze the carrier’s current K&R insurance market share, target segments and product offerings. Assess the impact of changes required to implement the solution using the existing business model. Determine existing people, process and technology touchpoints for tapping the K&R insurance market and design the future-state operating model. Prepare an implementation roadmap, control mechanism and execution strategy.

- **Technology and partners:** Establish strategic partnerships with hardware and software providers to implement the solution, or with a solution integrator that will bring all the components together.

- **Communication:** Devise a strategy to communicate with the sales channel (agents, brokers and direct channels), partners and internal product management, underwriting and actuarial teams.

Many opportunities exist in the K&R insurance market, and insurers can harness them if they have the vision and the wherewithal. By applying Code Halo thinking, K&R insurers can gain the first-mover advantage and realize their full potential.

*Note: Code Halo™ is a trademark of Cognizant Technology Solutions.*
Footnotes
14. K&R insurance market in 2010 = Ransom market in 2010 * K&R claims ratio (i.e., 34.3%). From the Hiscox Annual Report, 2013.
18. TruMobi is Cognizant’s enterprise mobility suite that manages and secures enterprise apps and data. For more information, please visit http://www.cognizant.com/trumobi.
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