ENERGY & MINING INSIGHTS REPORT:

Evolving Travel Requirements for the Resources Sector

By MARK LUNN

The natural resources industry has faced a number of challenges over the last few years. Crude oil prices have dropped from US$121 a barrel in 2011 to around US$49 a barrel in 2017.[1] The value of iron ore has fallen approximately 58% from its peak in 2011, and now supply far outweighs demand.[2] Other commodities, such as copper, also are experiencing a similar decline.[3] Additionally, the industry has seen a slowdown of new construction projects with existing large-scale expansion projects transitioning to operations.

To cope with these economical pressures, asset owners (operators) and engineering procurement construction management (EPCM) organisations are looking for ways to reduce costs and improve operational efficiency within their programs. One area that has come into sharp focus: how travel to remote worksites, including on-shore mine camps and offshore oil platforms, is managed.

Therefore, to understand how to respond better to the shifts occurring within the resources sector, American Express Global Business Travel (GBT) spoke to several leading experts in the industry to learn more about the changes that are happening, what their concerns are, and how TMCs may best position themselves to address the sector's needs.

Through this research, American Express GBT identified six travel program needs for the resources sector:

1. Automated end-to-end travel processes
2. Collaboration between the travel management company (TMC) and the workforce management (WFM) provider
3. Open industry data standards
4. Content and data aggregation systems with strict security controls
5. Determining the right service platform approach
6. Enhanced duty of care capabilities

TMCs are expected to extend their traditional service offerings to include these solutions which can improve operational efficiencies within the industry and help reduce costs. The specifics of these needs follow.

1. The importance of an automated end-to-end travel process

Although definitive data on the number of fly-in-fly-out (FIFO) workers is not readily available, for workers to get to remote worksites, generally both private charter and commercial air transport are required.

The problem is, two separate providers usually book, manage, and communicate these flights, missing the opportunity for greater efficiencies. Traditionally, TMCs book corporate or commercial travel via a global distribution system (GDS), while WFM applications are used to arrange for private charter transport.

Asset owners and EPCMs also use WFM software to perform other functions, including creating employee and contractor rosters, managing private charter inventory, managing remote worksite accommodation, and managing employee and contractor certifications.

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[1] Macrotrends charts, 3/17/2017, http://www.macrotrends.net/1369/crude-oil-price-history-chart
[2] http://www.businessinsider.com.au/here-are-4-excellent-charts-from-macquarie-on-the-iron-ore-market-2016-3#3
[3] Market Index – http://www.marketindex.com.au/iron-ore

Being able to integrate all the functions related to getting a FIFO traveller to a remote worksite with the associated commercial (GDS) travel segments is paramount. It should be possible to achieve this using one seamless process that will book the flights and ground transportation as well as take into account other functions, such as an individual's job certification requirements, travel authorisation management, and integration into the duty of care process.

As Gary Back, managing director of INX Software, says:

> "Integration is the name of the game and a process that is untouched by human hands is where the value lies. The cost savings of such an approach can see payback in as little as three months. It's all about tuning for productivity and profitability—getting the end-to-end process tuned to maximise productivity at each step of the process. Mining companies have already applied this to their material supply chain process, so why not apply the same thinking to the workforce management and travel process?"

An automated travel process that integrates remote worksite travel no longer should be viewed as innovation; it should be seen as the standard service offering for organisation's operating within the resources sector. Taking this automated travel process one step further, Ross Purdie, VP, Corporate Development and Finance, Gemstone Logistics in Canada has a vision for their product which he refers to as CIRYS 2020:

> "My vision for CIRYS is a system which captures employee profiles, acts as a security gateway, tracks training and what certificates are due to expire. A smart system that will work out your optimal route and handle the complex itinerary planning which is done today by Travel Arrangers."

2. The need for TMC and WFM provider collaboration

In order to achieve an automated end-to-end remote worksite travel process, there needs to be system integration and an organisational partnership between the TMC and the WFM provider. Such partnerships draw on the strengths of a small number of skilled and capable organisations. From an asset owner or EPCM perspective, this type of collaboration may provide greater efficiency savings, especially when the TMC can apply its scale and capability across a region or sector. It also will reduce the points of contact an asset owner or EPCM would need to coordinate with and, thus, provide better accountability for the end-to-end travel process.

The other key stakeholders who may benefit from such a collaboration are the asset owner and EPCM logistics team, both of whom greatly depend on the functionality of the WFM application and access to the personnel data stored within the application. Typically, the logistics team is the primary user of the WFM application and manages the travel to the remote worksites. Thus, any collaboration established between the WFM provider and the TMC can have positive implications for this team, especially when there is a level of system integration.

Although automating the travel booking process is an important step in achieving greater levels of efficiency, some organisations do not want to be locked into one WFM system to manage their end-to-end process.

Matt Carson, an industry expert within the Western Australian mining sector, says:

> "I would like systems to be independent as I don't want to see any organisation wedded to a specific workforce management application. Likewise, I don't want to see a TMC that can only integrate with one product. Even within one asset owner, different groups will deal with different providers, airlines, and other logistic-related organisations. So, there needs to be interoperability."

Therefore, organisations need to determine which of the three segments that comprise the "collaboration model" best meets their needs:

Collaboration Models

Tactical	Integrated	Strategic Alliance
"De-coupled systems" provide maximum flexibility in switching suppliers, but has limited ability for automation and data security implications.	"Coupled systems" provide full automation and are embedded into an organisation and can be intrinsically linked to processes, but with vendor lock in.	"Loosely coupled systems" provide some level of flexibility with a broader range of suppliers, but only if "open industry data standards" are adopted.

3. The advantage of open industry data standards

Industry standard data (xml) models have been adopted in other industry sectors, such as utilities and financial services. Within the travel industry, standard data models have been developed by the International Air Transport Association (IATA), OpenTravel Alliance (OTA), and Open Axis Group. The industry group *Future Travel Experience* conducted a conference in October 2015 where it concluded that IATA should lead efforts to develop industry-wide data sharing standards.

Although the primary focus of getting IATA to develop data open standards will be on commercial airline interaction, this also offers potential for applications involved in the management of travel to remote worksites due to the need to automate the end-to-end travel process.

Remote worksite travel relies upon different travel types and segments. Global travel data needs to be captured in a single consistent format, which can be difficult to achieve since the way data is collected and displayed in the GDSs can differ between systems, countries, and even organisational configurations.

Operating under strict security controls, open industry data standards that cover both commercial travel (GDS) and remote worksite travel (non-GDS) will alleviate the need for organisations to create multiple interfaces to aggregate and normalise the different data formats. This has the potential to drive down cost and create efficiencies, as the need to develop and maintain multiple interface types will be reduced.

The GBT Solution...

In 2016, American Express GBT launched "Global Trip Record" (GTR), technology that gathers the data for each itinerary from its diverse sources—pre-trip, on-trip, and post-trip sources—and packages it into a single, globally accessible "trip container." It is a single source of reliable, real-time trip data that enables new content since it allows for instant travel data transmission and third-party integration, all under strict security controls. And, GTR is easily searchable by travel counsellors to enable more consultative service.

4. The case for content aggregation

As the focus on travel program compliance and cost savings increases, the need for TMCs to provide real-time and accurate pre- and post-trip data becomes increasingly important. TMCs can bring added value through content and data aggregation, specifically if they:

- › Utilize their position and scale within the industry to aggregate content from different suppliers and providers
- › Combine raw travel data and content to understand traveller behavior and preferences
- › Store data centrally under strict security controls minimizing the risk of unauthorized access compared to multiple data repositories controlled by multiple third parties
- › Extend reporting capabilities into areas that go beyond travel policy compliance, lost savings, and travel cost benchmarks

As Tim Daverns, senior manager of strategic accounts for resources and charter at Qantas, said:

> "The Holy Grail would be that all the data is read from the same system. So if I'm onboarded into one system, all the data about me can be readily accessed. This could include my historical travel movements, my roster patterns, and my work locations. [For instance, my employer] should be able to run a report to view all my details—e.g., how many trips I've conducted, how many were to site, where I stayed, and how much this cost the organisation. Post-trip analysis is also limited, and travel providers need to get better at [showing] what has already been done. For example, by analysing a traveller's history, travel providers can potentially improve the services they provide travellers as well as understand their choices to make savings. However, in the absence of data how much can you learn?"

WFM applications provide comprehensive reporting of the assets they manage, including camp availability, housekeeping, charter flight manifests, charter no-shows and go-shows. Because this data can be limited to the managed inventory within the application, reporting is limited when external systems are involved in the end-to-end process.

For instance, one drawback of WFM applications is not being able to consolidate charter and commercial flight data. Another is not having the ability to include fatigue management and fitness-for-work checks in the pre-trip authorisation process.

One way to tackle these limitations is to smartly use data warehousing and business intelligence (BI) technology, coupled, of course, with strong data analysis and processing, and tight security measures.

As Andrew Barr from Vix Resources explained:

> "When using multiple providers, BI tools can create an overhead, which can eat into margins. Data warehousing projects can be costly, and it's sometimes difficult to get tangible outcomes. You need highly experienced people who know how to read the data and turn it into something that allows you to change your business practices. You must have a clear understanding of what you are trying to achieve, as opposed to just collecting everything. We believe the best approach is to share data between our clients' core systems and other vendors, so it can be combined to provide the required view."

The GBT Solution...
American Express GBT is developing a multiple channel platform that will aggregate GDS and non-GDS content. The platform will integrate a single user profile from multiple sources to be shared appropriately across different channels. In the future, it will provide the ability to leverage data from other sources to provide information for the pre-trip approval process and private charter bookings.

5. The challenge of choosing the right service platform approach

Over the last few years, the approach used by asset owners to manage travel and accommodation services for remote worksites has shifted. Three to four years ago, it was not uncommon to have individual sites manage their own camps, have on-site departmental administrators manage rosters for charter travel, or have the on-site IT department manage a site-specific instance of a workforce management application.

In an attempt to reduce costs and take better control of the process, a number of companies have consolidated services across their assets and moved the operational activities to a central location. In doing so, they have been able to reduce on-site costs and apply a standardised remote travel process. From a technology perspective, a centralised model also provides a single source of reporting data for all sites and consolidation of licenses and hardware, which can result in reduced costs.

After centralising and consolidating the remote worksite travel function, the next logical step is to consider if the function can be packaged up and offshored to an internal group, or if it can be completely outsourced. This can be seen as a way to reduce or shift cost, reduce liability, and allow organisations to focus on their core capability.

Jim Seethram, COO of Orissa software, outlined:

> "When resource organisations move from construction to production they want to spin off costs from their capital budget as they can't carry these costs into their operating budget. A number of years ago we took over camp management for a company in Canada. We managed and staffed their front desk, offloading considerable cost from their operating budget. The cost was still being paid but it was allocated differently. This also off loaded responsibility and removed their liability for payroll and personnel."

Rio Tinto, a global resource organisation, recently took this kind of approach. In March 2016, it awarded the French firm Sodexo a ten-year, $2.5 billion contract to provide all facilities management services for Rio Tinto's Pilbara operations. The travel and expense manager for a global resource organization said that for his company:

> "...the end goal is to ensure the right number of people are...on site to do the role they need to do. Who facilitates this process shouldn't matter as long we have the right agreements with the right vendors to support the process. The biggest piece is the technology integration because of the different systems needing to deal with multiple booking requests to ensure the right number and type of people are on site on that day."

The risks associated with outsourcing the remote workforce travel function should not be underestimated, however. Being able to successfully undertake the end-to-end capability requires operational experience, industry knowledge, and there also may be liability and insurance implications to consider. It also will be necessary to manage operational issues such as go- or no-shows, camp walk-ins, and charter flight disruptions.

Though merging roles can reduce costs, total consolidation is impossible in a system where four key entities—the asset owner/EPCM, WFM, TMC, and camp operator—play an integral role.

Breaking down the challenge of outsourcing the remote workforce travel function into functional lines of demarcation provides some guidance on which is best positioned to undertake the various functions. The below table illustrates how each function can be allocated to the appropriate entity.

Demarcation of Outsourced Remote Workforce Travel Management			
Asset Owner (Organisation)	**WFM Administrator (Role)**	**TMC (Organisation)**	**Camp Operator (Organisation)**
Conduct employee onboarding	Create profile in WFM and run roster	Book domestic and international commercial flights, hotel, and car; manage changes	Assign camp room based on roster
Create employee profile in enterprise resource planning system	Create charter flight and camp bookings based on roster dates	Issue tickets and consolidated itinerary	Manage room check in and check out
Create roster type based on employment contract	Action go shows/no shows	Provide duty of care tools and VIPs	Manage room clean
Authorise roster changes	Manage charter manifests	Provide supplier negotiated savings	Manage site food and beverage
Negotiate charter and/or commercial flight contracts	Verify employment certifications, site inductions and site access approvals	Provide pre-/post-trip reporting, benchmarking and cost-savings advice	Manage remote worksite bus travel

Demarcation of Outsourced Remote Workforce Travel Management			
Asset Owner (Organisation)	**WFM Administrator (Role)**	**TMC (Organisation)**	**Camp Operator (Organisation)**
Define travel policy	Manage ad-hoc site travel changes	Manage adherence to travel policy	Building and energy management
	Undertake site travel planning and forecasting	Provide global, 24/7 support and tiered servicing	
		Implement pre-trip authorization process	
Emergency and evacuation support	Emergency and evacuation support	Emergency and evacuation support	Emergency and evacuation support

As illustrated above, there are certain functions that logically correspond with each other. For example, the workforce management application should automatically allocate a charter seat for flights that it holds as managed inventory. Therefore, the entity responsible for that function should manage the entire charter-flight process to avoid unnecessary double handling and manual intervention.

That's not to say there aren't opportunities to operate in a more efficient manner. The asset owner always will want to maintain some level of control over their functions and the camp/facilities management is a specialist area requiring a large number of on-site support staff. But the lines of demarcation between the functions that are undertaken by the TMC and within the workforce management application are becoming blurred, depending on the skills and capability of the TMC.

Discussing this shift is Andrew Barr from Vix Resources who believes it comes down to the following:

> "We view this as being about the delivery of targeted outcomes across our different stakeholders. If you are in finance, you can view the tailored information you need that is appropriate to the finance department. For people in emergency and evacuations, give them a portal to manage evacuations showing who is on site, where they can go, and where they can be accommodated. We want to push these portals to stakeholders, so they can take what they need in whatever form they require."

One way to address the requirements of end-to-end service platforms for remote worksites is through collaboration that enables different organisations to leverage their capabilities together. Such partnerships provide the ability to flex up and down based on demand and also enable the tailoring of bespoke services, as one size will not fit all.

Another area that requires flexibility is pricing. Some contractor organisations require an annual fixed fee based on total profiles managed whereas others prefer to be charged based on the type of service they receive and total number of trips booked.

6. The benefits of enhancing duty of care capabilities

At the 2016 Melbourne International Mining and Resources Conference, Greg Baran, global client director at American Express GBT, conducted a presentation on *Best Practises in Managing Safety and Security for Travellers*. He explained how with all the risks there are in travel—from security dangers to natural disasters and health epidemics—organisations need to have a well-defined duty of care plan in place that is ready to be executed at a moment's notice.

One way to address these safety concerns is to utilise a travel disruption solution that enables organisations to provide support to their travelling employees. Historically, these systems have provided support to travellers

based on extracting data and itineraries from the GDS. Because information from charter flights is not uploaded into the GDS systems, there have been informational gaps in the end-to-end travel process, especially when travel to a remote worksite involved a combination of commercial and private charter flights.

Also complicating matters is that some contractor organisations are required to manage the duty of care and fitness for work obligations for their employees. Yet, in the event of an incident, it's the asset owner who must ensure that all obligations have been met. According to the Australian Trade Commission, while each Australian state and territory has its own legislation, each must adopt a general duty of care, which requires the operator of a mine to ensure both the health and safety of workers and that other persons are not at risk as a result of activities at the mine.

Without a doubt, minimising risks for employees and contractors as they travel to the remote worksite and while they are at the site is vitally important. A travel disruption solution will address some of these requirements. However, without full visibility of the end-to-end journey, and as a result of some level of fatigue management checking, gaps may arise in the process that may create additional risk.

The GBT Solution...

To help facilitate customers' duty of care obligations, American Express GBT offers EXPERT CARE which can assist and locate a traveller via their traveller itinerary, American Express Card swipe, and GEO location (consent must be provided by the traveller where necessary). American Express GBT has partnered with a global leader that provides risk intelligence to assist travellers before, during, and on trip.

Conclusion

From this research, American Express GBT views the integration of the booking process for remote worksite travel—one that combines private charter, accommodation, and commercial travel arrangements—no longer as innovation, but as a standard service offering. To attain this type of integration, both the TMC and WFM providers need to work together and leverage their capabilities. Flexibility that allows greater system and organisational interoperability is key and can be achieved through a wider adoption of open industry data standards.

American Express GBT is well positioned to support the resources sector with all of its ever-evolving travel needs, including: content aggregation, central data storage with strict security controls, a travel service platform, and enhanced duty of care provisions.

About The Author

Mark Lunn is a senior manager in the product and technology strategy group at American Express GBT. His area of specialty includes the application of workforce management solutions and providing technical product leadership to the energy and mining sector.

Prior to joining American Express GBT, Mark worked as a senior project manager and consultant for organisations operating in the resource and utility sector. This included working for global mining companies on projects in Australia, South Africa, Europe, South East Asia, and Canada.