Overview

COP28 and Big5 Global panels and experts repeatedly shared the observation that traditional policies and practices for infrastructure planning, financing and building needed to evolve from thousands of individual disconnected private agreements that sought to transfer away responsibilities for individual gain to connected transparent agreements that promoted efficiency and better allocated shared risk for greater mutual gain though collaboration instead of conflict.

The common theme was inefficient project administration and compounding of risk at each siloed stakeholder level added significant cost and distraction to projects. The call was for all stakeholders, including capital markets that provide financing, insurance and surety, to become more efficient and to employ better risk management.

Achieving greater transparency, engagement, efficiency and profitability for all stakeholders is the "why". The International Digital Ecosystem Architecture (IDEA) is the "how" that will establish the legacy for COP28.

The eXtended Business Reporting Language (XBRL) and the International Financial Reporting Standard (IFRS) are already aligned and establish the International Digital Ecosystem Architecture (IDEA) that can be expanded to reduce the estimated 40% waste in construction, align public and private data across multiple international market sectors, improve risk management and expand opportunities for small and local businesses.

The Digit Group and SRC Digital Insurance Services are ready to implement Surety Based Risk Management to further develop the IDEA by expanding the XBRL taxonomy, conducting research and engaging the COP28 and Big 5 Global communities.

Proposal

Expand the XBRL/IFRS taxonomy for next generation infrastructure.

> Utilize pilot projects to convene multiple stakeholders from trade associations, public agencies, private entities and academic leaders for continued expansion of the XBRL taxonomy to establish an International Digital Ecosystem Architecture (IDEA) that can be utilized by stakeholder, public or private, domestic or international, and replicated by any community.

Research permitting, policy and process for projects that involve transmission.

> Utilize pilot projects to identify existing standardized infrastructure related data plus research on digital ecosystems that enable next generation infrastructure as an IDEA enabled Metaverse. Where digital ecosystems accelerate clean energy, promote regenerative agriculture, empower agrivoltaics and digitally connect all stakeholders as a next generation community, a Metaverse.

Compare and Contrast

Traditional Project administration

Each stakeholder in a project has a single non-standard agreement between two parties with information contained in each respective administrative system(s) with data exchanged manually. The ecosystem of stakeholders comprises multiple disconnected systems each requiring rekeying data stakeholder to stakeholder. From regulators, capital markets, project owners, prime contractors, subcontractors and throughout the supply chain the collection of systems each have siloed information that is self-serving, incomplete and disconnected. Each with their own truth. Resolving issues entails the very complicated and time wasting process or reconciling multiple "truths" to a single "truth".

Next Generation Project administration

Project are administered on platforms with standardized agreements and forms that enable each stakeholder to connect to project data for importing as their needs require, and to export as their role dictates. Data elements are incorporated into smart contracts, blockchain and other innovations centralized around existing standardized common data sets including government and trade association forms. Reliable and consistent data interoperability is achieved by alignment of those forms with the XBRL/IFRS so that any system has only one data standard to map to. Resulting in consistent and timely single "truth" throughout the entire ecosystem.

Traditional Agreements and Forms

A wide range of proprietary agreements and unique forms make every project a "one off" to all stakeholders. Making portfolio management a significant challenge.

Next Generation Agreements and Forms

Common Government and Trade Association agreements and forms have their respective data elements incorporated into the IDEA so data elements can be exchanged and stakeholders confident they are "apples to apples" when exchanging the data elements. Proprietary agreements and forms utilize the IDEA data elements so they too can be exchanged and stakeholders are confident in the data being "apples to apples".

Traditional Risk Management

Each stakeholder agreement seeks to transfer risk away so that ultimately it is the lower tier of stakeholders being responsible for a majority of project risk. The owner looks to the prime contractor to contractually bear the risk and considers issues to be the prime contractors problem. The prime looks to their subcontractors and supply chain to bear risk and considers issues to be their problem. Each stakeholder prices risk and includes insurance or other costly responses to cover risk. The collection of stakeholders represents multiple cost burdens covering the same risk, with the added burden of then determining which agreement or policy will ultimately respond. Capital markets are unaware of project conditions and only engaged when issues create a problem that negatively impact their position and too late to mitigate.

Next Generation Risk Management

Projects are administered on platforms that support smart contracts and blockchain to enable transparency and timely conveys project conditions and issues to all stakeholders. Insurable risks are clearly defined in smart contracts blockchain provides a single "truth" and project monitoring enables innovative insurance products and services to be secured at the project level that does not replicate insurance.

Capital markets are aware of project conditions and can engage to contribute solutions to mitigate potential negative impacts.

Instead of project owners making an issue a problem for the prime and setting up the conflict, surety and insurance products and services with premiums paid by the project owner can manage subcontractor and supply chain issues or defaults that protects both owner and prime and eliminates the need for the prime to price the risk and avoids expensive conflicts. The owner and prime work together with the subcontractor or supplier surety and insurance for the benefit of the project and focus on building the project not building the legal case.

Traditional Project Cash Flow

Monthly applications for progress payments from subcontractors and suppliers are aggregated by the prime contractor for the prime contractors submission to the project owner. Manual review of work performed as it related to progress application requires extensive time and expense and delays payments to all stakeholders. All of the stakeholders price their agreements to incorporate the cost of financing the payment application process adding unnecessary considerable cost to the project.

Next Generation Cash Flow

Project platforms with smart contracts can detect project activity that trigger payments to stakeholders, eliminating the time burden of applying for payment and enabling timely payments to avoid the need to add finance cost.

Traditional Project Monitoring

Project monitoring of all stakeholder activity is only available to prime contractor, with summary information to project owners. Majority of project stakeholders, including capital markets, are unaware of the complete picture of project progress and unable to gauge impacts on their portion of the project or contribute solutions.

Next Generation Project Monitoring

Project monitoring is available to all permissioned stakeholders and tailored to their role in the project. Standardized agreements and forms with importable data elements enable capital markets to administer large portfolio of projects without interference but responsive to those that warrant attention.

Traditional Surety

Surety bonds are secured by contractors as "principal" and submitted to the project owner as "oblige", or prime contractor as "oblige" in the case subcontractors or suppliers. Premium is ultimately paid by the oblige however oblige does not know the surety, there is no relationship to assure a mutual understanding of expectation, and generally no communication until a situation has escalated to point of being a problem. At that point the situation may already be a conflict heading to litigation and little the surety can do other than defend the claim against its bond.

Next Generation Surety Based Risk Management

Oblige, as the payor of the surety premium, has a relationship with every surety they accept as a risk management partner, with project monitoring communicated timely and an agreed mutual understanding when information warrants engagement to mitigate risk.

Subcontractor surety bonds enable the project owner and prime contractor to work together to mitigate the risk of subcontractor default, with risk transferred to the surety for the mutual benefit of project owner and primate. Promoting a collaborative approach to avoid conflict and quickly resolve issues for the benefit of the project. Eliminates the need for the prime to price the risk of subcontractor or supplier default, and enables the surety to be responsive for its own interest as a project stakeholder.

Next generation surety will have the surety recognize the project owner and/or prime as a productive and positive risk management partner that will collaborate to mitigate risk.

Changing the relationship of the surety to see the oblige as its client working together transitions away from the traditional adversarial role that limits surety effectiveness and enabling the surety to be flexible in their extension of surety credit to project stakeholders.

Traditional Subcontractor/Supply chain

Project owners often seek to have local small business and minority participation on their projects and generally require prime contracts meet certain percentage goals. Prime contractors add the cost of risk management of those higher risk subcontractors and suppliers.

Next Generation Subcontractor/Supply chain with Surety Based Risk Management

Project owners paying the premium for surety on higher risk businesses eliminates the need for the prime to price that risk int their contract, and provides a platform for attracting small, local and disadvantaged business to the project with marginal risk.