

# XBRL-CET Working Group

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AGENCY: Office of the Secretary of Transportation (OST), DOT.  
Docket Number: DOT-OST-2017-0057

RE: XBRL-CET Working Group Submission of Comments for administrative items:  
Removal of unnecessary obstacles to transportation infrastructure projects  
Non-statutory requirements that the Department imposes and that should be revised

## Background

The construction of transportation projects have a number of historical policies and procedures that reflect a legacy of manual processes that can now be streamlined and made significantly more efficient by transitioning to standardized machine readable digital communications and electronic transactions.

The unnecessary obstacle to a successful transition to digital is the multiple legacy competing administrative systems that stakeholders must work with, where data is incompatible making electronic data exchange impossible, forcing stakeholders to manually interact with multiple systems costing thousands of man hours and lost productivity. The impact is greatest on small businesses that don't have the resources to overcome the inefficiency imposed on them.

The Federal Government has mandated through legislation that public companies submit their data to the Security and Exchange Commission using machine readable data standards like XBRL, and great expense has been incurred to make XBRL a viable data standard that meets the stringent requirement of the federal government yet is open source and available to everyone to utilize without cost.

The Federal Government is mandating with legislation like the DATA Act that machine readable data exchange be implemented to report spending and provide transparency for agencies to secure federal funding. Agencies that receive federal funding will therefore have to administer their contracts in a manner that provides compliance with the DATA Act, which has the potential of imposing on stakeholders that contract with government agencies the burden of multiple systems which will create significant burden on all stakeholders.

To remove the burden of stakeholders having to manually interact with multiple systems the federal government should provide guidance that federally funded projects, including transportation projects, should be administered by federally accepted standardized machine readable data standards, like XBRL, so that system developers, public and private, have clear direction on what improvements they need to make to their respective systems for compliance with contract data exchange requirements that apply to all federal agencies on all contracts, and without cost, licensing or legal constraint.

The federal government providing guidance and a pathway to standardized data interoperability will act as a catalyst for innovation as the certainty of data compatibility will have system developers creating competitive tools and resources that exploit data interoperability to enable easy, secure and efficient data exchange that will significantly reduce administrative cost, reduce data entry errors and enable data analytics for a wide range of applications for all stakeholders.

To contribute to the development of open data standards for construction of energy and transportation projects a group of industry leaders have been collaborating as the XBRL-CET (Construction, Energy and Transportation) to advocate for open data standards by engaging in projects to demonstrate the power of data interoperability, speaking at national events and responding to inquiries and RFP's.

#### Examples of XBRL-CET projects

The [Caltrans DOT model of posting progress payments](#) on the web for monitoring the building transportation projects, along with the [Virginia DOT dashboard](#) for monitoring project progress information, was the basis of our 2012 submission to the [XBRL Challenge](#) for demonstrating the potential of data standards. The project at California State University Chico with the Associated General Contractors of America was to create a [Project Status dashboard](#) (Login: View, Password: All) that allows surety markets to monitor the construction of bonded projects in both California and Virginia under one dashboard, with the ability to extract the data in XML. We utilized that dashboard for a proposed pilot between a business park, [Tracy Gateway](#), and Caltrans, where a the City of Tracy grant request to the USDOT as part of One Voice would demonstrate how XBRL could be used to improve the efficiency on transportation projects and at the same time improve access to surety credit for small business through transparency. The objective was to demonstrate how a developer of a business park and a public works contractor on a major Caltrans intersection (Lammers Road) can both use the same data standard, XBRL.

That concept of monitoring construction contracts for predictive analytics that would help the [surety industry](#) with underwriting and better manage potential defaults, which in turn would improve access to surety credit, was behind a submission to the [Department of Energy Data by Design](#) contest.

That submission to the DOE led to working with the Smart Grid Interoperability Panel (SGIP) on [Priority Action Plan 25 – Harmonized Financial Data](#), which transitioned to an award by the DOE under the [Orange Button](#), which included [SGIP for strategy](#).

The Caltrans model of posting progress payment information could soon to be followed by all California state agencies [compelled by AB1223](#).

Through the work of many public agencies, trade associations and working groups like XBRL-CET there is a consensus forming around open machine readable data standards like XBRL.

The DOE funded Orange Button will have the XBRL taxonomy expanded to include data fields for the construction and operation of the nation's energy infrastructure, the Smart Grid, with the express purpose of having the emerging transition to digital be along the path of open standards so that all stakeholders for building the Smart Grid were able to exploit data interoperability for the efficiency it would enable.

The DOE, through its work with the Orange Button, is removing the burden of multiple systems that impose multiple data exchange requirements, so that all systems can freely utilize the federally recognized machine readable data standards like XBRL.

The further promote adoption and implementation of open data standards the XBRL-CET working group [hosting working groups](#), providing [briefing sessions to government leaders](#), along with mentoring to students at CSU Chico for a [STEM education project](#), funded by [Wells Fargo](#), that will create shareware prototype applications that can be downloaded for free from the Salesforce App Exchange so that any stakeholder can cost effectively implement data interoperability with full confidence in the compatibility with all the other stakeholders, regardless of what system they use.

## 1. Specific reference.

### The DATA Act

The DATA Act requirement for entities receiving federal funding to utilize machine readable data standards recognized by the federal government should extend to administration of contracts using the same standard to avoid a burden on contractors and vendors.

### Contract Administration

All contracts require contractors and vendors to submit monthly progress payments. Any modifications that incorporate digital reporting by contractors or vendors should specify that only machine readable open standards recognized by the federal government be utilized in the administration of the contract, and must be in compliance with the DATA Act.

#### Miller Act

The Miller Act requires surety bonds on public works. The regulations should be modified so that contractors can submit their surety bonds electronically using [industry established](#) standardized policies and procedures. The regulations should also preclude any federal agency, or any entity receiving federal funds, from imposing a proprietary surety bond administrative system that would result in multiple systems that are a burden on the citizenry.

The manual processing of paper bond forms is a major burden on all stakeholders and could easily be eliminated without any cost with the adoption of standardized electronic bonds.

#### The Modernizing Government Technology Act (MGTAct)

##### Federal Information Technology Acquisition Reform Act

The MGT Act should require any federal agency, or any entity receiving federal funds, that receives funding to implement upgrades to legacy systems include the ability and functionality, to enable data interoperability utilizing machine readable data standards and compliance with the DATA Act for reporting.

The Federal Information Technology Acquisition Reform Act provides CIOs with the opportunity to modernize their technology.

#### Executive Order 13691 - Promoting Private Sector Cybersecurity Information Sharing Cyber Security Act of 2015

##### Cybersecurity Information Sharing Act

The establishment of data interoperability, both public and private, exposes stakeholders to cyber risks that need to be addressed on a national level, where government is not just a resource to private entities building transportation projects, but the front line of defense treating attacks on private entities as an attack on our nation state. A front line that prioritizes offensive strategies and detects cyber-attacks in real time to alert and protect private entities.

As an example, our advocacy for online progress payments that are then posted online for transparency, either locally or on Data.Gov, creates an exposure for progress payments to hacked, much like personal tax returns have become a target by thieves, where funds anticipated by contractors could be stolen by cyber criminals.

Another example would be the operational risk where cyber-attacks are against our Smart Grid or the energy based operational assets that serve our transportation grid that are becoming more interconnected, particularly as the IoT continues to grow with multiple components that are subject to cyberattack.

While private entities can secure insurance for reasonable expenses to internally recover from a cyber-attack, the thousands of individual private entities will never be able to provide a credible national defense that is offensive, not just post event reactive. Private entities will never be able to secure insurance at a reasonable price to cover the consequential damages should their work product be compromised by cyber-attack through no fault of their own.

Development of a national offensive capability to detect in real time threats and activities that poses a risk to private entities should be undertaken by the government in a manner that provides clear direction to the business community for where liability is retained, and where liability can be transferred to the government to maximize the effectiveness of real time protection. Such transfer will include and require data sharing, and private entities must have legal protection for sharing data as part of an offensive cyber strategy.

Basel 239 - Principles for effective risk data aggregation and risk reporting.

Requires banks to digitally report to the government data analytics for default potential in the banks' outstanding loan portfolio.

Companies engaged in building transportation projects often have bank financing to cover project costs pending payment. The terms and conditions of bank financing are based on the risk perceived by the bank, and the bank in turn has Basel 239 compliance imposed for data reporting on their outstanding loans.

By having the data standards for financial reporting for building transportation projects, which would fall under the DATA Act, consistent with the data reporting standards for Basel 239, the efficiency afforded the administration of the construction contract can be extended to the administration of the individual financing, which could have a positive effect on the terms and conditions of the financing, and reduces the burden to secure financing.

California AB-1223 Construction contract payments: Internet Web site posting  
(Proposed)

This bill would require any governmental agency with a website to post progress payment information similar to Caltrans

## 2. Description of burden.

Manual processing of data is transitioning to digital communication and electronic transactions.

Should that transition result in incompatible multiple systems having multiple data standards, or proprietary data standards that require license, fees or other costs to use, it would result in major burdens on all stakeholders and impose a significant cost.

That burden and excessive cost can be eliminated with guidance and direction from the government towards open data standards like XBRL.

Paper surety bonds, that are manually processed in preparing the bonds, with embossed seals, power of attorney and notary, and manually reviewed by the receiving governmental agency, is not only a burden, but very expensive in both administrative cost, and the cost of E&O insurance for when simple mistakes in preparation cause the bond to be deemed invalid.

The burden on state agencies for compliance with AB1223 on transportation related projects would be the lack of direction and guidance for how that project data should be posted. Without guidance on how XBRL could be used, consistent with industry standards, the multiple options would be confusing and result in multiple approaches to how data is posted, making it a burden for stakeholders to aggregate and administer.

The burden of cyber risk on entities is significant, and should to a great extent be managed on a national level, where entities are given direction and guidance for how to incorporate cyber strategies that avails them to the protection of a national cyber program. Without a national cyber program the burden on all stakeholders would be significant.

## 3. Description of less burdensome alternatives.

Instead of various entities imposing proprietary data standards, require the use of federally recognized data standards, like XBRL, and preclude proprietary standards that are more burdensome.

Electronic bonds, in use since 2000, are significantly less burdensome for all stakeholders and virtually eliminate the risk of error and therefore create a savings in E&O insurance.

Direction and guidance for how any entity can administer data for compliance with data reporting requirements utilizing XBRL, FIBO or other federally recognized data standards.

4. Examples of affected projects.

Every federally funded project and/or contract would be affected.

Every state funded project and/or contract that has some federal funding would be affected.

Every local agency project and/or contract that has some federal funding would be affected.

Action Plan - Data Interoperability

Promote the use of XBRL, FIBO and other federally recognized machine readable data standards to stimulate innovation and competition.

Prohibit the use of proprietary data standards for data exchange that constrains innovation and stifles competition for compliance with public laws.

Promote the use of industry trade group published data sets to be synergized with federally recognized machine readable data standards like XBRL and FIBO, and to have the respective trade associations maintain and update their data sets as warranted and under their control, and for the benefit of their constituency.

Prohibit any industry trade group from imposing any constraints, licensing requirements, or fees of any kind on the use of the trade association data set if that data set is contributed to, and incorporated into, machine open data standards like XBRL and FIBO.

Action Plan – Digital Commerce

Promote the use of secure electronic bonds. There are a number of competitive companies that already provide the service now and are in place ready to serve.

Prohibit the continued use of expensive and burdensome paper bonds that are subject to fraud.

Promote the use of competitive industry standardized surety bond delivery and administration systems on all public works.

Prohibit public agencies from imposing proprietary bond delivery and administration systems. Examples are PennDOT and [Nationwide Multistate Licensing System and Registry \(NMLS\)](#)

Action Plan – Cyber

Promote the engagement of stakeholders in best practices for cyber risk mitigation by the federal government providing clear policies and procedures as part of the Cybersecurity Information Sharing Act that when followed provide legal liability cover for all entities and stakeholders.

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Provide a national defense posture for providing private entities and stakeholders with a national cyber protection resource, including real time monitoring and threat detection, to establish an offensive approach to mitigating cyber risk.

Provide a clear demarcation of liability resulting from a cyber-attack, where the government assumes liability for consequential liabilities and the entity attacked is only responsible for their internal costs and recovery expenses with the objective of providing the insurance market with a quantified risk and limited exposure to make cyber insurance more affordable and responsive.

Engage with our working group members as part of the National Cybersecurity Public-Private Partnership.

Action Plan – Multi-agency data interoperability

Require all federal, state and local agencies to adopt federally recognized machine readable data standards like XBRL and FIBO as part of any funding provided by the government under MGT Act, the Federal Information Technology Acquisition Reform Act and others that provide funding for system upgrades.

Prohibit all federal, state and local agencies that receive funding from adopting or implementing a data standard or reporting requirement that does not utilize federally recognized machine readable data standards like XBRL and FIBO, or any requirement that is a “silo approach” to a single industry, trade association, or government entity.

Summary

The business case, apart from the efficiency gains and cost reductions due to better risk management, is that two federal agencies are utilizing the same data standards, and the citizenry isn't burdened with separate and incompatible federal systems for construction, starting with energy and transportation.

Respectfully submitted

XBRL-CET Working Group Members

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