International Association of Drilling Contractors

ART Drilling Control Systems
Subcommittee Meeting

14 August 2014

9:00 am – 12:30 pm

IADC
10370 Richmond Ave., Suite 760
Houston, TX 77042

Minutes

1. Reviewed the IADC anti trust guidelines ; http://www.iadc.org/antitrust/IADC%20Antitrust%20Guidelines%20Rev%206%20.pdf
2. Reviewed actions from Last meeting

Item	PIC	Update
Check for other IADC event conflicts with proposed Cyber Security October 9th was fine.	Scott Madox	No conflict for Oct 9th.
Ensure Cyber Security is include as a competency in the KDS	Manny La Bella	Included in latest edits to KSA.
Provide contacts for the other drilling contractors to provide input in KSA and	All	Re-iterated to the group.

3. REMINDER: IADC ADVANCED RIG TECHNOLOGY CONFERENCE 16-17 SEPT

4. KSA Matrix Status Review - Emanuel LaBella
    - Discussed other tools to be added (example catwalk, mudbucket…)
    - Discussed including the rig crew's understanding of external interfaces to other systems (F&G, ESD, EDS, DP..) to be incorporated in the KSA.
    - Subsea to include details about handling and maintenance of 1 ATM housings and PBOF cables.
    - Introduce a component that speaks to Parts management issues such as
        - Obsolescence management
        - Shelf life
        - Handling (e.g. ESD)
    - KSAs to include a component on Process Control Automation competency. (examples of systems would be SCADA drill, Novos, DSATs work..)

Meeting ACTIONS

Item	PIC	Status
Workgroup leads to provide a PPT slide and paragraph describing their teams' efforts to date and upcoming critical dates.	Siv Hilde Houmb Manny La Bella Kent Hulick	
Tentatively plan for work group meeting for Task 2: Drill a Stand. On 21st August , 2014 depending on Kent's availability. Coordinate with Kent on schedule.	Kent Hulick/Trent Martin	
Steve Ronan to provide troubleshooting directive he has used in the past.	Steve Ronan	
Next IADC DCS ART meeting 18th Sept (TBD)	Trent Martin	

Agenda for the meeting:

1. Introductions
2. Status workshop (arrangements and agenda)
3. Review of list of parameters/perspectives to consider for DCS risk assessment
4. Overview of risk assessment standards relevant for DCS
5. Introduction to OWASP method and how they derive/update list of top 10 risks
6. Overview of relevant standards for DCS

Minutes:

1. Short introduction of the participants – "round around table".

2. Updated details on the content and logistics of the cybersecurity workshop were presented and discuss. It was decided to name the workshop: IADC Drilling Control Systems Cybersecurity Workshop. Please see the below details on the goal and purpose of the workshop. BP will host the workshop. Exact location still to be determined.

Title: IADC Drilling Control Systems Cybersecurity Workshop
Date: October 9, 2014
Time: Full-day workshop

International Association of Drilling Contractors

Goal: Communicate, discuss and get feedback from the industry on the relevance of existing cybersecurity standards for DCS.

Background and Purpose:
Control systems play a crucial role as part of the industrial mission of a drilling rig, for both land and offshore operations. In the cybersecurity domain there is a serious challenge for the drilling rig owners and the control system suppliers, especially due to the lack of cybersecurity standards and industry-agreed best practices.

There are no specific cybersecurity standards for Drilling Control Systems per se although there are standards both for industrial control systems and SCADA systems. Other standards, although general in nature, are also applicable. Thus, there is a need to identify these relevant Standards whose criteria, methods and practices are relevant and applicable to Drilling Control Systems cybersecurity.

Achieving a cybersecurity strategy for Drilling Control Systems requires a contextualizing and tailoring effort. The workshop will review existing standards including those that may not be obvious in cybersecurity and engage both standardization bodies and the industry in a discussion on how to tailor existing cybersecurity standards for DCS.

The workshop will also outline the work program of the IADC ART DCS new workgroup on Cybersecurity - Drilling Control System CybSec. The aim of the workgroup is to develop Cybersecurity Guidelines for Drilling Control Systems that are built upon existing industry standards and best practices.

Who should attend: Personnel working on cybersecurity for Drilling Control Systems, including Drilling Contractors, Operators, Vendors, Equipment manufacturers, OEMs, and more.

3. The discussion of parameters/perspectives to consider for DCS risk assessment was deferred to next meeting. Please see AP 1-3 below. Dates for APs have been updated.

4. The status of the work on identifying relevant risk assessment standards and methods were presented and discussed. The group provided feedback on additional standards to consider. Updated draft of the risk assessment standards and methods overview will be provided at the next F2F meeting, September 18.

5. Introduction to OWASP was deferred to next meeting.

6. A dedicated session to go through the list of standards relevant for DCS cybersecurity was scheduled for Thursday August 21, 12:30 – 2:30 PM.

AP no.	Description	Responsible	Deadline
01	List categories/parameters/attributes relevant for assessing cybersecurity risks of DCS from a business perspective and send the list to Siv.	Kent Hulick	September 1
02	List categories/parameters/attributes relevant for assessing cybersecurity risks of DCS from a HSE perspective and send the list to Siv.	Nathan Moralez	September 1
03	Distribute combined list of categories/parameters/attributes for assessing cybersecurity risks for DCS.	Siv Hilde Houmb	September 5
04	Identify relevant risk assessment standards and methods and prepare an overview presentation for meeting	Cris DeWitt (supported by Michael Garcia)	In progress

	August 14.		
05	Prepare presentation of OWASP, including the procedure for identifying and updating the top-ten risks, for meeting August 14.	Siv Hilde Houmb	August 14 – presentation deferred to next meeting
06	Prepare presentation of findings thus far for the standards analysis (overview of relevant standards for DCS cybersecurity) for the meeting August 14.	Siv Hilde Houmb	August 14 – dedicated session planned for Thursday August 21
07	Draft workshop program for DCS Cybersecurity workshop October 9.	Siv Hilde Houmb (supported by Nathan Moralez)	In progress

Review of the SPDE DSATs UML project for 'Drill-A-Stand'

Located at http://www.dimadsoft.com/DAS/index.htm
Documented using Enterprise architect

This Drill-A-Stand model starts after you make a connection.

A few areas were identified in this preliminary review of the UML
We need to explain these diagrams in common terms, define any uncommon acronyms (RCS, API.) that are used in the UML.

IADC/SPE Needs to define the actors for the use cases
e.x. Driller, company man, software

NOTE: In the state diagram portion – there was no transition criteria defined. Who will define the in/out transition criteria (SPE or IADC)?

Next steps will be as a group t to do a high level sanity check
Review the state diagrams

There are also some areas identified by SPE that a difficult and would like to have resolved:
Breaking Gel
Pumps on first, then rotate or
Rotate then turn pumps on.
Pulling off bottom
Drop circulation rate

It was noted for this review useful diagrams identified for the driller's review would be the
State diagram
Top Level USE CASE - remove the software specific items.

Item	PIC	Status
.Compile into a document a list of screenshots of the top level use cases for the items requiring review by a driller.	Kent	
Once document completed, compile a list of questions for the drillers pertinent to these	Not assigned yet.	

use cases. Need to identify what the driller is concerned with and what is missing for the activities		
Martin to provide a list of academia.	Martin	

Attendance:

Name		Company Name
Richard	Wilson	**ABS Consulting**
David	Wagner	**AWC Inc.**
Martin	Cavanaugh	**Cavanaugh Consulting**
Aaron	Blinka	**GE Oil & Gas**
Steven	Ronan	**Hydril Pressure Control A GE Oil & Gas Business**
Scott	Maddox	**IADC**
Erlend	Engum	**National Oilwell Varco**
Siv	Houmb	**Secure-NOK AS**
Patric	Dove	**Siemens Industry Inc**
Drew	McPhail	**TESCO Corporation**
Trenton	Martin	**Transocean**
Emanuele	LaBella	**Transocean**