Meeting Date:  Friday, May 6, 2016
Time:  17:00 UTC
Purpose:  Brainstorming With University of New Hampshire InterOperability Laboratory (UNH-IOL)

Attendees:

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
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<tbody>
<tr>
<td>Pat Maroney</td>
<td>Integrated Networking Technologies, Inc. – CTI-Interop SC - Co-Chair</td>
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<td>David Eilken</td>
<td>FS-ISAC/Soltra - CTI-Interop SC - Co-Chair</td>
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<td>Erica Johnson</td>
<td>Director UNH-IOL</td>
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<td>Tim Carlin</td>
<td>SW Engineering Lead @ UNH-IOL</td>
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<td>Tim Winters</td>
<td>UNH-IOL</td>
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<tr>
<td>Jane Ginn</td>
<td>Cyber Threat Intelligence Network, Inc. – CTI-Interop - Secretary</td>
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Agenda:

- Explore Options for Teaming
  - Review Read-Ahead Documents – CTI-TC Standards
- Outline Information Needs for UNH-IOL
- Discuss Interface and Communication Channels
- Discuss Preliminary Scenario Elements

Discussion:

Pat Maroney

*Suggested that each member introduce themselves*

*Introductions made around*

Pat Maroney

Does UNH-IOL currently have a cybersecurity curriculum that we could leverage to develop additional value in our partnership?

Erica Johnson

There are some clubs with that focus
There are currently 100 undergraduate students involved in the IOL -various programs
There are 20 graduate students

Tim Carlin

For the RSA2017 the students could help to define certain features of the test program

Patrick Maroney

There are a lot of synergies between what we are looking for and your program needs. We can provide great opportunities for your students in their curriculum to gain exposures to the leading developments in the Cyber-Security Domain.
Let’s move on – I sent out a notational Agenda – Shall we discuss the standards? Do you have any questions on what I sent you? Basically, the Transport piece (TAXII) and the Content piece (STIX & CybOX)

Jane Ginn
Pointed out the difference between current versions & the roadmap for future versions

Patrick Maroney
That highlights the point that we need to be mindful of the future JSON schema We need to specify the conformance target – based on what we have now.

Tim Carlin
We should consider that as an Interop angle 1st – as XML
We had discussed this issue on the last call
For purposes of Interoperability – We need to focus on the Transport
We should develop Device Profiles

Jane Ginn
Pointed out that there are specific technologies and capabilities of participants
We should let these members define the Device Profiles
I can send you the most current list of the companies that have signed up

Tim Carlin
Yes, that will help

Jane Ginn
Where are we with an official agreement?

Patrick
Let me walk-back a bit on where we are for this meeting:

We are exploring the viability of a partnership between UNH-IOL and the OASIS CTI TC to fast-track the development of a suite of Interoperability and conformance tools and processes. Initial investigation reveals solid synergies with the existing UNH-IOL Frameworks (i.e., UNH-IOL IMPACT) and the elements of CTI –TC Specifications. The process underway here is to define the requirements and key elements of a full suite of OASIS CTI TC Standards Interoperability and Compliance Testing Framework and Service (again UNH-IOL IMPACT is a good reference model). We need to help INH-IOL make the business case to establish the market potential for UNH-IOL to recover their investments in delivering such capabilities. UNH-IOL efforts are ultimately funded through membership fees, testing services, and software licensing. To codify the level of interest in the proposed Testing Framework, the CTI TC needs to provide Letters of Intent from stakeholders in the Vendor Community.

For our initial discussions – it will be important to focus on the RSA2017 participants, but we have a much broader goal – to develop a Suite of Tests for use well beyond RSA2017

Tim Carlin
It will be good to focus on what part of protocol suite communicates: TAXII

Dave Eilken
That is right – the TAXII Discovery Process is what comes first in the ecosystem
Some companies in the ecosystem just produce STIX – Don’t use TAXII

Tim Carlin
That’s right – a schema is a schema – it is the transport that is important here For the schema – you just demo that “OK, you’ve created a valid XML object”
With TAXII you have to ask if the devise can consume the STIX file
This allows us to do a Proof-of-Concept

David Eilken
So basically, there are 4 options
You authenticate to someone – then there is a push and a pull
Someone authenticates to you – then there is a push and a pull

Tim Carlin
That makes a good case for Profiles
On to another topic – I see in the documentation it is based on HTTP & TCP

Patrick Maroney
It will also allow for SMTP, but no one is using it

Tim Carlin
Are all the currently active devices using TLS?

Dave Eilken
Yes, those operating in a production environment

Patrick Maroney
In a development environment I use http on a segregated subnet

Tim Carlin
I can see scenarios where you would use a gateway
It extends to other opportunities to work with
For implementation, there are different ways to proceed, based on the participants
For example, will testing be done at the lab? By request? One-on-one? Hot test?

Patrick Maroney
My objective is broader than RSA2017 – I want to have a fully developed suite of tests
For broader community – beyond RSA2017 – My ultimate goal
To start, we need to develop a Test Document – will you be taking lead on that?
Erica, what do you need from us to proceed?

Erica Johnson
Letters of Intent from vendors [key OASIS CTI TC Vendor Stakeholders]

Patrick Maroney
We should be able to help you get that from the participating vendors

Erica Johnson
From this discussion, and the documents you sent we’ll develop a Proposal
We will show how much it will cost them.

Patrick Maroney
Then the Next Steps would be to get the vendors engaged
Introduce them to UNH-IOL
It will be important to get complimentary devices participating
Timeline | Roadmap | Cost

Tim Carlin
We need as complete a set of participants as possible

Patrick Maroney
Can you leverage an existing Interop Test Framework?

Tim Carlin
If we are just looking at interoperability – there would not be a lot of development
If we start looking at conformance testing, that would require some development

Jane Ginn
I wonder if it would make sense to do the conformance testing during the 2018 Interop?
By then there will be a JSON version for the vendors to write to
Then, we can do conformance testing

Patrick Maroney
Would you have enough resources to build out conformance tests?

Tim Carlin
Yes, probably. But our real value-add would be in helping to develop conformance
In parallel with the build-out of the new JSON versions
If we work in tandem, we can help refine during the development stage

Patrick Maroney
Yes, designing for testability
It will be important to have that dialogue with the members

ACTION ITEMS:

Erica Johnson
I need to get you a Draft Proposal

Patrick Maroney
And we need to get you letters of Intent from the participants

Jane Ginn
I will send you the current list of participants

FINAL NOTES:

Patrick Maroney
Shall we schedule a Follow-up call now?

Tim Carlin
Is it better to schedule later, after we have gone through the document?

Patrick Maroney
Ok, we’ll do that
Thanks everyone!

MEETING TERMINATED