OASIS OPENC2
TECHNICAL COMMITTEE MEETING
(Final)
<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Presenter</th>
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<tr>
<td>11:00 – 11:15</td>
<td>Call to Order and Roll Call</td>
<td>Joe Brule</td>
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<tr>
<td></td>
<td>Approve Minutes of Previous Meeting</td>
<td>Joe Brule</td>
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<td>Announcements:</td>
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<td></td>
<td>• Leave Of Absence Requests</td>
<td>Joe Brule</td>
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<td>• Results of LSC Version 1.0 Ballot</td>
<td>Duncan Sparrell</td>
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<td>11:15 – 11:30</td>
<td>OpenC2 Subcommittee Reports</td>
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<td>Implementation Considerations</td>
<td>David Lemire, Bret Jordan</td>
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<td>Actuator Profile</td>
<td>Dave Kemp, Jyoti Verma</td>
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<td>Language</td>
<td>Jason Romano</td>
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<td>• Status of Rev 0.2.0</td>
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<td>• Revised Work Plan</td>
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## Agenda (page 2 of 2)

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<tr>
<td>11:30 – 11:35</td>
<td>Old Business</td>
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<td>Face to Face</td>
<td>Duncan Sparrell</td>
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<td>11:35 – 11:50</td>
<td>New Business</td>
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<td>Merge IC and AP Subcommittee Stimulating Participation</td>
<td>Allan Thomson</td>
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<td>Bret Jordan</td>
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<td>11:50 – 12:00</td>
<td>Wrap up</td>
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<td>• Query for Walk-on Items</td>
<td>Joe Brule</td>
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<td>• Action Item Review</td>
<td>Joyce Fai</td>
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<tr>
<td>12:00</td>
<td>Adjourn</td>
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Call to Order and Roll Call

Joe Brule

To expedite the roll call process, kindly record your attendance for today’s meeting within Kavi


If for whatever reason you are unable to do so, send the Executive Secretary a record of your attendance through email and we will track your attendance onto the OASIS OpenC2 site for this meeting.
Joe Brule

OpenC2 TC Minutes for Oct 18, 2017 Meeting:
OpenC2 TC Minutes for Oct 18, 2017

Slide Deck from previous meeting (for reference)
OpenC2 Monthly TC 18 October 2017
Announcements

Cyber Standards Council (Sounil Yu)
Ballot Results (Duncan Sparrell)
Ballot Results: OpenC2 Language Specification V1.0 Working Draft 01 as a CSD

- **Ballot**
  - Opened 10/31
  - Closed, 11/14
  - Results @ https://www.oasis-open.org/apps/org/workgroup/openc2/ballot.php?id=3142

- **Passed as CSD**
  - 21 yes, 5 no, 0 abstain, 7 missing
  - Voter Comments
  - Insufficient votes to release for Public Review

- **Purpose**
  - Incremental agreement ✓
  - Agree on Actions ✓
  - Engagement ✓
Participation in the Subcommittees is the path to success
Implementation Considerations

Co-chairs
Dave Lemire / Bret Jordan
November 1st IC-SC Call
- Continued discussion on relation to STIX COA
- Jyoti Verma COA presentation to STIX TC
- Will complete presentation on Thurs, November 16th @ 4:30pm Eastern Time (Webex Info on OASIS Calendar)

Responding to comments on IA Implementation Considerations Committee Note draft
- TC members are invited to review & comment further
Working Documents

- Documents for comment, in Implementation folder:
  - IA Considerations (draft Committee Note)
    https://docs.google.com/document/d/1ImN9EQGUAj-HdpJFFtdonpHgcuklmB3bnf9s0AV1u0U/edit#heading=h.gjdgxs
  - “Relation To” document
    https://docs.google.com/document/d/1RfsjMBWw89XxQslXxWAeR4SXsvnl4wNwrsBtGc3QvdU/edit#heading=h.99gbar9fgf7l
  - “Ecosystem Considerations” document
    https://docs.google.com/document/d/1ITIMoX6_DEzcX8pKn5c61Gj3B-JL87BP5KaoCxtZI20/edit
  - Implementation Use Cases
    https://docs.google.com/document/d/1hWk0cfpCkXvHhZ9ul2GuRSulDGgF25jm9ek8rbK7J4I/edit

- Or start with the top level OpenC2 TOC Document
  https://docs.google.com/document/d/1Bz_WXOiYc9vmMS8rNEP1-ZZgPzdeGoZMN6W5W9GSmdU/edit
Request: Populate Code Repos

- New OASIS openc2-... repos established on GitHub
  
  https://github.com/oasis-open?utf8=%E2%9C%93&q=openc2-&type=&language=

- Three repos populated:
  - openc2-ocas
  - openc2-yuuuki
  - openc2-pub-sub-on-bsd

- Four repos from OpenC2 forum need porting
  - openc2-reactor-mastor
  - openc2-reactor-relay
  - openc2-orchid
  - openc2-iacd

- Source repos at https://github.com/OpenC2-org
Actuator Profile

Jyoti Verma / Dave Kemp
Co-chairs
Actuator Profile Subcommittee

OASIS subcommittee page:
https://www.oasis-open.org/apps/org/workgroup/openc2-actuator
Activity

- 25 October AP-SC Meeting
  - Dave Kemp presented the Template approach for generating OpenC2 commands from COAs
  - Phil Royer presented Python COA examples
  - Future COA discussion will occur in the Implementation Considerations SC

- 8 November AP-SC Meeting
  - Jyoti Verma presented the initial draft of an Actuator Profile for the Network class of functions
  - Profile for an individual function (e.g., firewall, IPS) will be derived from the Network class profile
  - Received one response to Data Call
Profile Hierarchy

Generic Profile

Function Class Profiles

Individual Function Profiles
Working Documents

- Actuator Profile SC
  - [https://drive.google.com/drive/folders/0ByY7rMsnC7rraTFScFE4N2NQV0k](https://drive.google.com/drive/folders/0ByY7rMsnC7rraTFScFE4N2NQV0k)

- Network Profile
  - [https://docs.google.com/document/d/1DT5aHfDxFtlyVkJkKWQbA+aGfSgX74hGEQCD5xWlkJkOy-Ao/edit#heading=h.gjdgxs](https://docs.google.com/document/d/1DT5aHfDxFtlyVkJkKWQbA+aGfSgX74hGEQCD5xWlkJkOy-Ao/edit#heading=h.gjdgxs)

- Generic Profile, Endpoint Manager Profile
  - To be developed

- OpenC2 Templates:
  - [https://docs.google.com/presentation/d/1EWAXxJQpS9FrOL4LjEoX1ixY8htnasA9FYnLV-mSuUp4/](https://docs.google.com/presentation/d/1EWAXxJQpS9FrOL4LjEoX1ixY8htnasA9FYnLV-mSuUp4/)
Meeting Schedule

- Biweekly meetings, announced:
  - Via OASIS email
  - On Slack `#meetings` and `#actuator profile` channels
- Schedule: second and fourth Wednesday of every month
  - Next meetings (all at 1300 ET / 1700 UTC)
    - 22 November 2017
    - 13 December 2017
  - WebEx details on TC calendar event in Kavi
Language Spec: An Agile Process

- TC Committee Specification Drafts
  - v1.0-wd01 (Working Draft 01)
    - Initiate the process
    - Boilerplate and Actions
  - v1.0-wd02
    - Targets
    - JSON Structure
  - v1.0-wd03
    - Command-Options, Target-Specifiers, -Options
    - Responses
    - Conformance Section
  - v1.0-wd04
    - Foundational Actuator Profile
Targets: We Need Your Help

- Target Vocabulary
  - Language Spec, Summary of Targets: [link]
  - Action-Target Mapping: [link]
    - We are NOT specifying valid pairs in Spec
    - Derived from current examples, use cases
    - Discovering gaps, orphans
- Discussions on Slack:
  - #lang-targets
  - #language
Meeting Schedule

- Schedule: Tues of every week
  - Next meetings (all at 1300 ET / 1800 UTC)
    - 21 November 2017
    - 28 November 2017
    - 5 December 2017
    - 12 December 2017
    - 19 December 2017
  - WebEx details on TC calendar event in Kavi
Old Business

Face to Face (Sparrell)
Face to Face

- **Purpose**
  - Provide a means of having high bandwidth discussions to talk through complicated and detailed topics.

- **Survey results**
  - on Slack, will put on wiki
  - Frequency 2-3 times a year

- **Location/Date**
  - 30 people want mtg in DC area in next few months
  - Two hosts have fallen thru

- **AT&T agreed to host**
  - January 10-11
  - AT&T Forum, Washington DC (601 New Jersey Ave NW, Washington, DC 20001)
New Business

- Merge the Implementation Considerations and Actuator Profile Subcommittees (Allan Thomson)
- Stimulating Participation (Bret Jordan)
Implementation Considerations and Actuator Profile Group Proposal
This OpenC2 Implementation Considerations SC is responsible for identifying and providing guidance for implementation aspects such as message transport, and information assurance (IA). The SC will leverage preexisting standards to the greatest extent practical and it is within scope of this SC to identify gaps as they pertain to command and control of cyber defense technologies. The Implementation Considerations SC shall also maintain a repository of prototype and reference implementations contributed to the OpenC2 Technical Committee.
The Actuator Profile Subcommittee is responsible for creating and maintaining actuator profiles which define the **OpenC2 message elements applicable to specific cyber defense functions**. The OpenC2 language description is intended to be relatively stable as technology and product capabilities evolve. Profiles are intended both to segment the function space so that developers need not be concerned with message elements that do not apply to a specific actuator function, and to define the message elements needed to accommodate new functions. A profile will define the actions, targets, actuator specifiers, and modifiers that are **mandatory to implement** in order to claim conformance with the profile, as well as optional elements that are meaningful in the context of the profile.
Today 2 groups exist that *seem* to be related to the *same goal* of defining what it means to implement OpenC2 standards in products

- Implementation group suggests topics and discussions that are relevant to OpenC2 product implementation

- Actuator group is focused on specific topics and discussions that are relevant to specific product categories and ensuring correct interpretation and implementation of OpenC2

Vendors and organizations that want to implement OpenC2 have to attend and pay attention to both sub-committees

- Appears that both groups are attended by similar active voices (when possible)
Option #1

- Merge implementation and actuator sub-committees into 1 sub-committee, named \textit{tbd}

- **Desired Outcome**
  - Effectively the same goals as both groups, just combined
  - All topics and specifications related to implementation of OpenC2 across products would be defined in tbd group
  - All interpretations and specifications necessary for Interoperability of OpenC2 products would be defined in tbd group
Option #1 Pros/Cons

- **Pros**
  - Single sub-committee to participate and get more active voices engaged to represent implementation of the standard
  - Related conversations and discussions on either interoperability, actuator profiles, implementation of OpenC2 all happen in 1 place
  - Better specifications for Actuators and Interoperability as a result

- **Cons**
  - Have to re-charter the 2 sub-committees
Option #2

- Keep implementation and actuator sub-committees but use a single regularly scheduled tbd meeting to discuss all actuator/impl topics in that meeting
  - i.e., a single TC-level meeting where either a) every other week topics include implementation vs. actuator or b) multiple topics in the same meeting

- Desired Outcome
  - Effectively achieves Proposal #1 goals without requiring change to the structure of OpenC2
Option #2 Pros/Cons

- **Pros**
  - Single place to participate and get more active voices engaged to represent implementation of the standard
  - Related conversations and discussions on either interoperability, actuator profiles, implementation of OpenC2 all happen in 1 place
  - Better specifications for Actuators and Interoperability as a result
  - Avoids re-charter

- **Cons**
  - Creates confusion on which group is producing what and who owns what
Question

- What do others think?
- Option #1?
- Option #2?
- Or status quo.
Stimulating Participation
Poll for New Business
Action Item Review
Upcoming TC Meetings

- December 20 at 11:00 and 21:00 Eastern (15:00 and 01:00 UTC)
- January 17 at 11:00 and 21:00 Eastern (15:00 and 01:00 UTC)