ISO/IEC JTC 1  **N 13188**

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| | **ISO/IEC JTC 1** |
| | **Information technology** |
| | **Secretariat: ANSI (United States)** |

**Document type:**   Business Plan

**Title:**   SC 38 Business Plan and Dashboard, Cloud Computing and Distributed Platforms for the PERIOD COVERED: May 2015 – September 2016

**Status:**   This document is circulated for review and consideration at the November 2016 JTC 1 meeting in Norway.

**Date of document:**   2016-10-07

**Source:**   SC 38 Chair

**Expected action:**   ACT

**Action due date:**   2016-11-07

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**Committee URL:**   http://isotc.iso.org/livelink/livelink/open/jtc1

**PERIOD COVERED: May 2015 – September 2016**

## 1.0    Executive Summary

Holding  its first meeting in May 2010, SC 38 was chartered at the November 2009 JTC 1 Plenary to work on Distributed Application Platforms and Services (DAPS) including Cloud Computing and the related facilitating technologies Web Services and Service Oriented Architecture (SOA).   Upon completing the now published foundational standards:
> ISO/IEC 17788: Overview and Vocabulary
> ISO/IEC 17789: Reference Architecture

and recognizing the increasing demands - especially by governments - for standards to support the specification and acquisition of Cloud Computing technologies and services, in 2014 JTC 1 approved a revised scope and changed the title of SC 38 to  Cloud Computing and Distributed Platforms (CCDP).

Since the 2015 JTC 1 Plenary, SC 38 published all 3 parts of the SOA standard  and Part 1 of a multi-part Service Level Agreement standard.
> ISO/IEC 18384-1:2016, Reference Architecture for SOA – Part 1: Terminology and Concepts for SOA
> ISO/IEC 18384-2: 2016, Reference Architecture for SOA – Part 2: Reference architecture for SOA solutions
> ISO/IEC 18384-3: 2016, Reference Architecture for SOA – Part 3: Ontology for SOA
> ISO/IEC 19086-1: 2016, Service Level Agreement (SLA) Framework and Terminology, Part 1: Overview and
> Concepts

In addition, 2 first CDs, 2 second CDs and 2 DIS ballots were initiated during the past year.

SC 38 continues to respond to demands from governments and other consumers for standards to guide acquisition of cloud computing and distributed platform technologies and services.  Toward that objective, SC 38 is convening a Planning Summit on 17-18 October 2016 in Berlin, Germany prior to the SC 38 Plenary. The objective of the Summit is to identify Cloud Computing (CC) ecosystem standards gaps addressing customer/consumer needs and pain points. The output of the summit will be considered by JTC 1 SC 38 in planning future work, including in the possible development of new work item proposals.

## 2.0    CHAIRMAN'S REMARKS

Cloud Computing and Distributed Platforms represent the most significant developments in IT technology today with substantial impact on the way IT technologies and services are provided and consumed.  Cloud Computing may also result in a significant discontinuity in the marketplace.

### 2.1    Market Requirements, Innovation

Recognizing its potential, consumers of IT technologies and services - especially governments - are demanding standards to assist in their transition to Cloud Computing.  Responding to these demands, in 2014 JTC 1 approved SC 38's change in scope and title:

> Title:    Cloud Computing and Distributed Platforms (CCDP)

> Scope: Standardization in the area of Cloud Computing and Distributed Platforms
>        including but not limited to:
- Service Oriented Architecture (SOA)
- Service Level Agreement
- Interoperability and Portability
- Data and their Flow Across Devices and Cloud Services

SC 38 carries out its Programme of Work utilizing the following Working Groups:
> WG 2    Service Oriented Architecture (SOA)- **DISBANDED 2015**
> WG 3    Cloud Computing Service Level Agreements (CCSLA)
> WG 4    Cloud Computing Interoperability and Portability (CCIP)
> WG 5    Data and their Flow across Devices and Cloud Services (CCDF)

## 2.2    Accomplishments

In this period, JTC 1/SC 38 published the following documents:

| ISO/IEC 18384-1:2016 | Reference Architecture for SOA – Part 1: Terminology and Concepts for SOA |
|---|---|
| ISO/IEC 18384-2: 2016 | Reference Architecture for SOA – Part 2: Reference architecture for SOA solutions |
| ISO/IEC 18384-3: 2016 | Reference Architecture for SOA – Part 3: Ontology for SOA |
| ISO/IEC 19086-1: 2016 | Service Level Agreement (SLA) Framework and Terminology, Part-: Overview and Concepts |

In addition, the following documents progressed/are progressing through the ballot process:

| CD 19086-2 | Service Level Agreement (SLA) Framework – Part 2: Metric Model |
|---|---|
| CD 19941 | Cloud computing – Interoperability and portability |
| 2nd CD 19941 | Cloud computing – Interoperability and portability |
| 2nd CD 19944 | Data and their Flow across Devices and Cloud Services |
| DIS 19086-3 | Service Level Agreement (SLA) Framework and terminology, Part 3 |
| DIS 19944 | Data and their Flow across Devices and Cloud Services |

At the October 2015 SC 38 Plenary, WG 2 on Service Oriented Architecture was disbanded with thanks to the Convenor and participants for completing their work.

## 2.3    Resources

SC 38 meets in Plenary, usually along with its Working Groups, twice each year.  In addition, SC 38 has expressed a preference to resolve ballot comments, when required, as National Body processes.  With the occasional in-person interim Working Group meetings, this has resulted in an increased number of face-to-face meetings.

Since the last JTC 1 Plenary in November 2015, SC 38 and its subgroups met face- to-face as follows:
- 19-21 January 2016, Stockholm, Sweden: SC38/WG 4
- 4-8 April 2016, London, UK: SC 38 Plenary and all WGs
- 17-19 May 2016, Washington, DC USA: CRM for DIS 19086-1
- 18-20 July 2016, Brisbane, Australia: CRM for CD 19941
- 20-22 July 2016, Brisbane, Australia: CRM for 2nd CD 19944
- 17-18 October 2016, Berlin, Germany: SC 38 Planning Summit
- 18 and 21 October 2016, Berlin, Germany, SC 38 Plenary
- 19-20 October 2016, Berlin, Germany: CRM for CD 19086-2
- 19-20 October 2016, Berlin, Germany: CRM for 2nd CD 19941

SC 38 Working Groups convene periodic electronic meetings to advance work between face-to-face meetings.

SC 38 Plenary and sub-group meetings continue to be well attended.  There is good participation in SC 38's Programme of Work by National Bodies and Liaison Organizations.  SC 38 currently has 30 "P" members and 11 "O" Members.  See list of SC 38 National Bodies here.

## 2.4 Competition and Cooperation

Cloud Computing is hot.  Many standards setting organization as well as open source initiatives are working in the area.  SC 38 is not seeking to replicate work being done elsewhere.  Rather, SC 38 prefers to serve in a systems integrator role, referencing best of breed standards and cooperating with forums having specialized expertise to augment the core Cloud Computing standardization projects carried out within SC 38.  Toward this objective, SC 38 has reached out to JTC 1 SC 27 Cyber Security to develop Part 4 of the Service Level Agreement standard.  Furthermore, SC 38 has 16 Liaison Organizations, with many taking active roles in the work of SC 38; see list here.

### 3.0    Working Groups

SC 38 develops standards in the area of Cloud Computing and Distributed Platforms (*SC Program of Work*)

## 3.1   WG 2 on Service Oriented Architecture (SOA)

### 3.1.1    WG 2 Accomplishments

WG 2 Published all 3 parts of the SOA standard:

| ISO/IEC 18384-1:2016 | Reference Architecture for SOA – Part 1: Terminology and Concepts for SOA |
|---|---|
| ISO/IEC 18384-2: 2016 | Reference Architecture for SOA – Part 2: Reference architecture for SOA solutions |
| ISO/IEC 18384-3: 2016 | Reference Architecture for SOA – Part 3: Ontology for SOA |

### 3.1.2    WG 2 Deliverables (this year and future)

At the October 2015 SC 38 Plenary, WG 2 on Service Oriented Architecture was disbanded with thanks to the Convenor and participants for completing their work.

### 3.1.3    WG 2 Strategies/Risks/Opportunities/Issues...

Any follow-on SOA work will be handled by SC 38 unless/until there is a demonstrated need to establish a new Working Group for this area.

## 3.2   WG 3 on Cloud Computing Service Level Agreements (CCSLA)

### Terms of Reference

Progress project ISO/IEC 19086, which has the following scope:
- Provide an overview of Service Level Agreements (SLAs) for cloud services
- Describe relationship between the Master Agreement and SLAs
- Describe SLA components that can be used within a framework to build SLAs
- Define Terms commonly used in Service Level Agreements for cloud services
- Define Metrics associated with cloud services SLAs
- Define Core Requirements for cloud services SLAs

Establish liaisons and collaborate with other entities within JTC 1, SDOs and consortia performing work related to cloud SLAs

### 3.2.1   WG3 Accomplishments

WG 3 published the following first part of the multi-part Service Level Agreement standard.

| ISO/IEC 19086-1: 2016 | Service Level Agreement (SLA) Framework and Terminology, Part-: Overview and Concepts |
|---|---|

WG 3 progressed two other parts of the multi-part SLA standard

| CD 19086-2 | Service Level Agreement (SLA) Framework – Part 2: Metric Model |
|---|---|
| DIS 19086-3 | Service Level Agreement (SLA) Framework and terminology, Part 3 |

### 3.2.2    WG 3 Deliverables (this year and future)

- **2017 Deliverables**
  - Progress ISO/IEC 19086-2 to DIS
  - Publish ISO/IEC 19086-3
  - Work with JTC 1 SC 27 to progress 19086-4 SLA Security to CD

- **Future Deliverables**
  - Publish all 4 parts of ISO/IEC 19086
  - Define future 19086 work including possible additional parts and/or needed revisions
  - Define and progress future work in other areas of Cloud Computing

### 3.2.3 WG 3 Risks, Opportunities and Issues

An international standards Service Level Agreement is anticipated by many constituents.  WG 3 has an opportunity to produce market relevant standards at precisely the right time.  However, because many others are also working in this area, WG 3 risks being late to the party and missing the market window if they do not publish all parts of the SLA standard on a timely basis.  WG 3 also risks running out of work unless they focus on possible future projects.


## 3.3 WG 4 on Cloud Computing Interoperability and Portability

**Terms of Reference**

Progress project ISO/IEC 19941, which has the scope of:
- Establish terminologies for use in understanding core fundamental concepts of interoperability and portability relating to cloud computing.
- Define the issues and types of cloud computing interoperability and portability in order to facilitate a shared common understanding among cloud stakeholders on these two aspects.
- Provide guidance for cloud computing interoperability and portability that best explain business necessity such as the ability to exchange and use information in cloud environment.
- Explore common concerns, use cases, and functions/components as it applies to cloud computing interoperability and portability.
- Map relationships among cloud computing interoperability and portability to other standards such as Cloud Computing Reference Architecture (RA) and SLA**.**

Establish liaisons and collaborate with other entities with within JTC 1, external SDOs, Fora and Consortia performing associated work, as appropriate.

### 3.3.1 WG 4 Accomplishments

WG 4 progressed their document as follows.

| CD 19941 | Cloud computing – Interoperability and portability |
|---|---|
| 2nd CD 19941 | Cloud computing – Interoperability and portability |

### 3.3.2 WG 4 Deliverables (this year and future)

- **2017 Deliverables**
  - Progress 19941 to DIS
  - Define future 19941 work including possible additional parts and/or needed revisions

- **Future Deliverables**
  - Publish ISO/IEC 19941
  - Define and progress future work in other areas of Cloud Computing

### 3.3.3 WG 4 Risks, Opportunities and Issues

WG 4 has an opportunity to address a market need on a timely basis.  If their standard is late or if it is considered not useful by Cloud Computing providers and consumers, WG 4 risks irrelevancy.  WG 4 also risks running out of work unless they focus on possible future projects.

### 3.4 WG 5 on Data and their Flow across Devices and Cloud Services

**Terms of Reference**

Progress project ISO/IEC 19944, which has the scope of:
- Establish common and functional ways of understanding and describing the breadth of the cloud service ecosystem.
- Describe the impact of portable customer devices (e.g. phones, tablets, laptops) on the cloud service ecosystem as well as other devices participating in this cloud computing ecosystem.
- Build on top of the existing cloud vocabulary and reference architecture in
- ISO/IEC 17788 and ISO/IEC 17789 to include the concept of personal clouds, covering the modern devices and services ecosystem.
- Enumerate and define the types of connections that can exist between cloud
- services and customers where their devices are mobile.
- Provide foundational concepts necessary to enable others to provide guidance concerning data locality, mobile ecosystem issues, and identity issues.
- Identify the types of data that flow across the customers and cloud services
- ecosystem and that can help cloud customers' better understand and consequently protect the privacy and confidentiality of their data.

Establish liaisons and collaborate with other entities within JTC 1, external SDOs, Fora and Consortia performing associated work, as appropriate.

#### 3.4.1 WG 5 Accomplishments

WG 4 progressed their document as follows.

| 2nd CD 19944 | Cloud services and devices : data flow, data categories and data use |
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| DIS 19944 | Cloud services and devices : data flow, data categories and data use |

#### 3.4.2 WG 5 Deliverables (this year and future)

- **2017 Deliverables**
  - Publish ISO/IEC 19944
  - Define future 19941 work including possible additional parts and/or needed revisions

- **Future Deliverables**
  - Define and progress future work in other areas of Cloud Computing

### 3.4.3 WG 5 Risks, Opportunities and Issues

WG 5 has an opportunity to address a market need on a timely basis.  If their standard is late or if it is considered not useful by Cloud Computing providers and consumers, WG 5 risks irrelevancy.  WG 5 also risks running out of work unless they focus on possible future projects.

# JTC 1/SC 38 DASHBOARD 2016
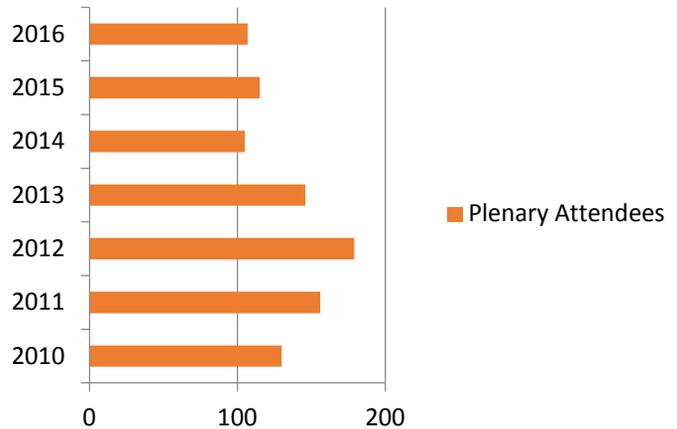## (2015 - 2016)
## Performance Indicators

| Year (Sep. – Aug.) | Systematic Reviews | | | | Standards | | |
|---|---|---|---|---|---|---|---|
| | Total Closed | Closed On time | % on time | Number Published | Avg time to Publish | # within timeframe | % within timeframe |
| 2015 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2016 | 0 | 0 | 0 | 0 | 33.73 | 5 | 40 |

| Standards Published (incl. TRs) | |
|---|---|
| 2012 | 1 |
| 2013 | 1 |
| 2014 | 2 |
| 2015 | 0 |
| 2016 | 5 |

## Plenary Attendees



## New & Current Work Items
- SLA Framework
- Interoperability and portability
- Cloud services and devices: data flow, data categories and data use