Defense Information Systems Agency
Joint Interoperability Test Command

Interoperability Process Guide (IPG)

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Interoperability Process Guide Overview

- Overview of Joint IOP Certification Policy
- JITC Joint IOP Test Certification Procedures
- Information Required for Joint IOP Certification
- Interoperability Certification Products
- Procedures for Waiver Requests, Interim Certificate To Operate (ICTO), and Operating At Risk List (OARL)
IPG Background

• Per DoDI 8330.01, JITC develops/maintains the IPG in coordination with DoD CIO’s office

• IPG Version 1.0 was signed on 10 September 2012 by JITC, DISA TEO, and DoD CIO

• The intended audience is the Program Manager and other interoperability stakeholders

• IPG is a living/breathing document that can be readily updated (easier than a DoD issuance)

• IPG is posted on the ISG Resource Site: http://jitc.fhu.disa.mil/cgi/isgsite/pubs.aspx
Example: Joint IOP Process Overview

**SPONSORS**
- PM/PMO
- Integrated Test Teams
- Sponsor

**TEST ACTIVITIES**

**Requirements**
- NR KPP
- ISP
- Architectures
- CONOPS

**Develop Test Requirements**

**Develop Certification Approach**

**Perform Evaluation**

**Document Test Results**

**TEST OUTCOMES**

- Denied Certification
- Joint Interoperability Assessment
- Joint Interoperability Certification with Conditions
- Joint Interoperability Certification

DOD ISSUANCES

DoDI 8330.01

United in Service to Our Nation
IPG v1.0, Change 1

- IPG Version 1.0, Change 1, signed April 2014
- New section describes interoperability requirements changes
  - Tools and process for requirements review
  - Establishes minimum DoDAF architecture information needed for joint IOP certification
- Revised guidance for recertification
  - Periodic
  - Situational
- Updates ICTO, Waiver, and OARL procedures
## Architecture Req’s for IOP Certification (NR KPP +)

### REQUIRED Architecture Viewpoints for Joint Interoperability Certification

<table>
<thead>
<tr>
<th>Viewpoint</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV-1</td>
<td>Overview of architecture scope and context, describes the concepts contained in the</td>
</tr>
<tr>
<td>AV-2</td>
<td>Integrated Dictionary – defines all terms and metadata used in the architecture.</td>
</tr>
<tr>
<td>OV-1</td>
<td>High Level Operational Concept Graphic – describes operational concept.</td>
</tr>
<tr>
<td>OV-2</td>
<td>Operational nodes, needlines, and activities - information exchanges between</td>
</tr>
<tr>
<td>OV-3</td>
<td>Information exchanges and associated measures and metrics.</td>
</tr>
<tr>
<td>OV-5b</td>
<td>Operational Activity Model - NR KPP Missions/Tasks - activity level depiction.</td>
</tr>
<tr>
<td>OV-6c</td>
<td>Event-Trace Description - lifelines (nodes) and events.</td>
</tr>
<tr>
<td>SV-1</td>
<td>Systems Interface Description - defines system functions and information flow among</td>
</tr>
<tr>
<td>SV-2</td>
<td>Systems Resource Flow Description - communications links, networks, and systems.</td>
</tr>
<tr>
<td>SV-5a</td>
<td>Maps system functions (activities) to operational activities.</td>
</tr>
<tr>
<td>SV-6</td>
<td>System data exchanges &amp; associated measures and metrics.</td>
</tr>
<tr>
<td>SV-7</td>
<td>Complete set of system performance parameters (measures).</td>
</tr>
</tbody>
</table>

### CONDITIONAL Architecture Viewpoints for Joint Interoperability Certification

<table>
<thead>
<tr>
<th>Viewpoint</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIV-2</td>
<td>Logical Data Model - architecture data definitions.</td>
</tr>
<tr>
<td>DIV-3</td>
<td>Physical Data Model - describes how DIV-2 is implemented.</td>
</tr>
<tr>
<td>StdV-1</td>
<td>Standards Profile - list of implemented technical standards, rules, and guidelines.</td>
</tr>
<tr>
<td>SV-5b</td>
<td>Maps systems to operational activities.</td>
</tr>
<tr>
<td>SvcV-1</td>
<td>Services Context Description – identifies services and their interconnections.</td>
</tr>
<tr>
<td>SvcV-2</td>
<td>Specifies resource flows exchanged between services, and may list protocol stacks.</td>
</tr>
<tr>
<td>SvcV-4</td>
<td>Depicts allocation of service functions and data flows between service functions</td>
</tr>
<tr>
<td>SvcV-5</td>
<td>Maps services (activities) to operational activities.</td>
</tr>
<tr>
<td>SvcV-6</td>
<td>Maps service data exchanges with associated measures and metrics.</td>
</tr>
<tr>
<td>SvcV-7</td>
<td>Complete set of performance parameters (measures) of the services.</td>
</tr>
</tbody>
</table>

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12 Required Views

10 Conditional Views
ICTO Process

1. **Initiates ICTO process.**
   - Fills out request forms and ‘Quad Charts’
   - Reviews and validates request. Forwards to JITC and to ISG Secretariat

2. **Reviews ICTO request.**
   - Makes recommendation to ISG Rep. Updates STP
   - If in-cycle, PMs/ISG Reps present requests at bi-monthly ISG meeting
   - If out-of-cycle, ICTO request submitted on-line via ISG Management Console

3. **Votes on requests.**
   - In-Cycle or Out-of-Cycle
   - Drafts ICTO Approval/Disapproval Memo for DoD CIO signature

4. **ISG Chairperson(s) Approve/Disapprove.**
   - ISG Secretariat distributes Approval or Disapproval Memo to ISG Rep and PM
   - ICTO Memo posted on STP to monitor status. Issues expiration alert as needed
   - Takes action as appropriate

5. **ISG Secretariat sends Memo to ISG Rep/PM documenting ICTO status.**
   - JITC posts ICTO Memo on STP

6. **ISG Secretariat notifies ISG Reps within 90 days of ICTO expiration.**

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*DISA* 
A Combat Support Agency

*STP* 
Program Manager

*ICTO Request*

*ISG Secretariat*

*JITC*

*Interoperability Steering Group (ISG) Representatives*

*ISG Reps*

*In-Cycle via ISG Meeting*

*Out-of-Cycle via ISG MC*

*ISG Chairperson(s)*

*Approve/Disapprove*

*STP*
Waivers to Policy

• The DoD CIO, in coordination with USD(AT&L) and JCS, consider waivers to policy under a variety of circumstances:
  – Validated as an urgent need
  – Introduction of new or emerging technology pilot program
  – Cost outweighs the benefit to the DoD

• JITC provides recommendation on waiver request to DoD CIO
  – Assess risk to the network and DoD operations

• Final decision made by DoD CIO

• If approved, interoperability requirements specified in request are waived
• New process, similar to (former) Interoperability Watch List
  – Systems with significant interoperability deficiencies, not actively progressing toward certification, etc., placed on OARL to ensure attention is given to achieving interoperability objectives
  – 10 criteria which may each result in placement on OARL
  – ISG members may nominate systems to OARL

• DoD CIO makes OARL determination

• OARL Quarterly memos sent to operational stakeholders

• Programs removed from OARL if an ICTO, Waiver, or Joint IOP Certification is issued, or no longer in operational use

• OARL available at:
  – https://nit-jitc.nit.disa.mil/cgi/isg/
IPG V 2.0 Changes

- ISG looks to use IPG as vehicle to distribute timely policy/procedure updates and revisions

- Next: Publish IPG V 2.0 to align with DoDI 8330.01 and ISG Guidance
  - Will include updates to:
    - Recertification Process
    - Waiver Process
    - OARL Process
    - DoDAF Architecture Information for Systems, Services, and Enterprise Services
    - Define Comment Criticality for Req’s Review
    - Clarify 8330 Network Connection Req’s