

| Suppliers Declaration of Conformity for USGv6 Products | | USGv6-v1 SDOC-v1.10 Page 1 | |
|--|--|---|--|
| 1 | The Document Requiring Conformity: | | USGv6 Profile Version 1.0, July 2008. (NIST SP500-267) |
| 2 | Product Identifier: | C9606R | |
| 3 | Supplier's Name, Address and SDOC Contact Details | | |
| Cisco Systems, Inc. 170 West Tasman Dr. San Jose, CA 95134 USA | | | |
| 4 | Product as Tested/Declared: <i>Product Identifier, version/revision information, details of configuration tested.</i> | | |
| IOS XE 16.12 | | | |
| 5 | Product Family (other products using same IPv6 stack(s) to which these results are declared to apply). | | Check Product Family attestation below. |
| C9600-SUP-1 | | | |
| 6 | USGv6 Capability summary. (For each distinct IPv6 stack in the product provide a summary of its USGv6 capabilities below and include a detailed test result summary). <i>e.g. example-prod-id/stack-1: USGv6-v1-Host: IPv6-Base+Addr-Arch+IPsec-v3+IKEv2+SLAC+Link=Ethernet.</i> | | |
| USGv6-v1-Router: IPv6-Base+Addr-Arch+SLAAC+IGW+EGW+Mcast+Link = Ethernet | | | |
| 7 | Self Contained or Composite SDOC? (Must indicate one). | | |
| YES | All of the declared USGv6 capabilities of this product are addressed by original test results reported in this SDOC. | Some or all of the USGv6 capabilities of this product are provided by the use and/or integration of unmodified components that have their own unmodified USGv6 SDOCs. All of the relevant referenced SDOCs are identified in section 8 and attached. This product's page 2 will indicate which capabilities are provided by specific referenced components (product-id/stack-id). | |
| 8 | Additional Declarations / Attachments: (List supplier & product-id/stack-id for referenced and attached test results in the case of composite products). | | |
| | Component Supplier | Product ID: | Stack ID: Notes: |
| [1] | | | |
| [2] | | | |
| [3] | | | |
| [4] | | | |
| 9 | Supplementary Attestations (Answer all). | | |
| Yes | This product is fully functional in dual stack environments. That is, no claimed capabilities are invalidated if this product is operated in a dual stack (6 and 4) network environment. | Yes | This product is fully functional in IPv6 only environments. That is, no claimed capabilities are invalidated if this product is deployed in a network environment that does not support IPv4. |
| Yes | This SDOC contains a capabilities test report for each unique IPv6 stack in the product. If no stacks/ports not covered are documented, and how their IPv6 capabilities differ from those reported are explained. | Yes | All of the products listed in the product family in section 5 are implemented such that their USGv6 capabilities are identical in form and function across the entire product family. The specific conformance and interoperability test results for the USGv6 capabilities of an identified member of this product family are provided in this SDOC. The SDOC attests that these tested USGv6 capabilities are identical and unmodified for all the products cited above. |
| 10 | Signature | Ashlee Panburana | Date April 23rd, 2020 |
| | Print Name / Title | Ashlee Panburana, IPv6 Team Lead | |

See instructions for fields 1-12 on Page 4.

| Product Id: | | C9606R | Stack Id: | | | IOS XE 16.12 | | | | |
|------------------|--|--|--------------------------------|------------------------|--------|--------------|-------------------------------|--|-----------------------------|--|
| Spec / Reference | Section | USGv6-v1 Profile Requirements | Context / Configuration Option | Supported Capabilities | | | USGv6 Testing Program Results | | | |
| SP500-267 | 6.1 | IPv6 Basic Requirements | | Host | Router | NPD | Test Suite Conformance/NPD | Test Lab / Result ID, Note #, or Component Ref | Test Suite Interoperability | Test Lab / Result ID, Note #, or Component Ref |
| | | support of IPv6 base (IPv6:ICMPv6:PMTU:ND) | IPv6-Base | | P | | Basic v1.* C | UNH-IOL/31632 | Basic V1.* I | UNH-IOL/31634 |
| | | support of PMTU Discovery Protocol requirements | PMTU | | P | | Basic v1.* C | UNH-IOL/31632 | Basic V1.* I | UNH-IOL/31634 |
| | | support of stateless address auto-configuration | SLAAC | | P | | SLAAC-V1.* C | UNH-IOL/31632 | SLAAC-V1.* I | UNH-IOL/31634 |
| | | support of Creation of Global Addresses | SLAAC - c(M) | | P | | SLAAC-V1.* C | UNH-IOL/31632 | SLAAC-V1.* I | UNH-IOL/31634 |
| | | support of SLAAC privacy extensions. | PrivAddr | | | | Self Test | | Self Test | |
| | | support of stateful (DHCP) address auto- | DHCP-Client | | | | DHCP Client v1.* C | | DHCP Client v1.* I | |
| | | support of automated router prefix delegation | DHCP-Prefix | | | | Self Test | | Self Test | |
| | | support of neighbor discovery security extensions | SEND | | | | Self Test | | Self Test | |
| SP500-267 | 6.6 | Addressing Requirements | | | | | | | | |
| | | support of addressing architecture reqts | Addr-Arch | | P | | Addr Arch v1.* C | UNH-IOL/31633 | Addr Arch v1.* I | UNH-IOL/31635 |
| | | support of cryptographically generated addresses | CGA | | | | Self Test | | Self Test | |
| SP500-267 | 6.7 | IP Security Requirements | | | | | | | | |
| | | support of the IP security architecture | IPsecv3 | | | | IPsecv3 v1.* C | | IPsecv3 v1.* I | |
| | | support for automated key management | IKEv2 | | | | IKEv2 v1.* C | | IKEv2 v2.* I | |
| | | support for encapsulating security payloads in IP | ESP | | | | ESPv3 v1.* C | | ESP v1.* I | |
| SP500-267 | 6.11 | Application Requirements | | | | | | | | |
| | | support of DNS client/resolver functions | DNS-Client | | | | Self Test | | Self Test | |
| | | support of Socket application program interfaces | SOCK | | | | Self Test | | Self Test | |
| | | support of IPv6 uniform resource identifiers | URI | | | | Self Test | | Self Test | |
| | | support of a DNS server application | DNS-Server | | | | Self Test | | Self Test | |
| | | support of a DHCP server application | DHCP-Server | | | | Self Test | | DHCP Serv v1.* I | |
| SP500-267 | 6.2 | Routing Protocol Requirements | | | | | | | | |
| | | support of the intra-domain (interior) routing protocols | IGW | | P | | Self Test | | OSPFv3 v1.* I | UNH-IOL/31631 |
| | | support for inter-domain (exterior) routing protocols | EGW | | P | | Self Test | | BGP v1.* I | UNH-IOL/31630 |
| SP500-267 | 6.4 | Transition Mechanism Requirements | | | | | | | | |
| | | support of interoperation with IPv4-only systems | IPv4 | | | | Self Test | | Self Test | |
| | | support of tunneling IPv6 over IPv4 MPLS services | 6PE | | | | Self Test | | Self Test | |
| SP500-267 | 6.8 | Network Management Requirements | | | | | | | | |
| | | support of network management services | SNMP | | | | Self Test | | Self Test | |
| SP500-267 | 6.9 | Multicast Requirements | | | | | | | | |
| | | support of basic multicast | Mcast | | P | | Self Test | Self declaration | | |
| | | full support of multicast communications | SSM | | | | Self Test | | Self Test | |
| SP500-267 | 6.10 | Mobility Requirements | | | | | | | | |
| | | support of mobile IP capability | MIP | | | | Self Test | | Self Test | |
| | | support of mobile network capabilities | NEMO | | | | Self Test | | Self Test | |
| SP500-267 | 6.3 | Quality of Service Requirements | | | | | | | | |
| | | support of Differentiated Services capabilities | DS | | | | Self Test | | Self Test | |
| SP500-267 | 6.12 | Network Protection Device Requirements | | | | | | | | |
| | | support of common NPD reqts | NPD | | | | N1 N2 N3 N4 v1.3 | | | |
| | | support of basic firewall capabilities | FW | | | | N1 FW v1.3 | | | |
| | | support of application firewall capabilities | APFW | | | | Self Test | | | |
| | | support of intrusion detection capabilities | IDS | | | | N3 IDS v1.3 | | | |
| | | support of intrusion protection capabilities | IPS | | | | N4 IPS v1.3 | | | |
| SP500-267 | 6.5 | Link Specific Technologies | | | | | | | | |
| | | support of robust packet compression services | ROHC | | | | Self Test | | Self Test | |
| | | support of link technology [O:1] | Link=Ethernet | | P | | Self Test | Self Declaration | Self Test | Self Declaration |
| | | (repeat as needed) support of link technology | Link= | | | | | | | |
| 12 | < Check HERE if this stack's DOC includes additional information about tested capabilities and options on an attached page 3 of notes. | | | | | | | | | |

| Level | Level of support for USGv6-v1 Requirements for capability. | Color | Indication of USGv6-v1 Recommended Level of Support for device type / stack role. |
|-------|---|-------|--|
| | Blank - SDOC makes no declaration for this capability. | | Indicates capability that is recommendend as mandatory (unconditional MUST) in the USGv6-v1 Profile. |
| P | Passed required tests of USGv6-V1 requirements for these capabilities. | | Indicates cabability that is unusual for a given device type / stack role. Do not select without careful analysis. |
| N | See notes page for details on the level of support of USGv6-v1 reequirements for this capability. | | Indicates capability that is left optional / ocnditional by the recommendations of the USGv6-v1 Profile. |
| X | USGv6 capability not supported in product. | | |

Test Suite - Specific USGv6 Test suite used for test. See: <http://www.nntd.nist.gov/usgv6/test-specifications.html> **Note #** - reference to a detailed note about this capability or result on attached page.
Test Lab / Result ID - Abbreviation of accredited laboratory and its local identifier for this test result. **Component Ref** - Supplier / Product / Stack ID of distinctly tested component that provides this capability.

| Field 13 | | Product Id: | | | Stack Id: | | | Notes about USGv6-v1 Capabilities. | | | |
|--------------------|------------------|-------------|-------------------------------|--------------------------------|------------------------|--------|-----|------------------------------------|----------------------------|-----------------------------|----------------------------|
| Note # | Spec / Reference | Section | USGv6-v1 Profile Requirements | Context / Configuration Option | Supported Capabilities | | | Test Suite Conformance/NPD | Test Lab / Result ID, Note | Test Suite Interoperability | Test Lab / Result ID, Note |
| | | | | | Host | Router | NPD | | | | |
| 1 | | | | | | | | | | | |
| Discussion: | | | | | | | | | | | |
| 2 | | | | | | | | | | | |
| Discussion: | | | | | | | | | | | |
| 3 | | | | | | | | | | | |
| Discussion: | | | | | | | | | | | |
| 4 | | | | | | | | | | | |
| Discussion: | | | | | | | | | | | |
| 5 | | | | | | | | | | | |
| Discussion: | | | | | | | | | | | |
| 6 | | | | | | | | | | | |
| Discussion: | | | | | | | | | | | |
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| Discussion: | | | | | | | | | | | |
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| Discussion: | | | | | | | | | | | |
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| Discussion: | | | | | | | | | | | |
| 10 | | | | | | | | | | | |
| Discussion: | | | | | | | | | | | |

Vendor's General Notes / Discussion about this Product / Stack's capabilities:

General: This document describes network product from the identified supplier that claims support of USGv6 capabilities. General product and supplier identification is given on Page 1. Overall results of testing USGv6 capabilities for conformance, interoperability and network protection are given on Page 2. Detailed instructions for completing and interpreting each numbered field are given below. Note USGv6 Testing website at: <http://www.antd.nist.gov/usgv6/testing.html>. Contact: usgv6-project@antd.nist.gov.

| Field | Description and Instructions | Field | Description and Instructions |
|-------|--|-------|---|
| 1 | The Document Requiring Conformity Identifies the profile version implemented. Not a user completable field. | 11 | Summary of Results: The format of this table mirrors the USGv6-v1.0 capabilities checklist (USGv6 Profile, Appendix A). The 12 categories of USGv6 capabilities are listed as subheadings, with subsidiary functions as line items. Configuration options related to conditional implementation of selected capabilities. |
| 2 | Product Identifier: Supplier's concise name for the product declared. | | Product Id/Stack Id: The identification line of this page includes space for Product Id and Stack Id labels. Product Id is the same as given on Page 1. As there may be more than one unique IPv6 stack implemented in the product, the Stack Id field identifies the particular stack described. One Results Summary page per stack is required. |
| 3 | Suppliers Name, Address and Contact Details: Company name and point of contact for SDOC questions, street address, phone and email. | | Host, Router and Network Protection (NPD) columns identify 'preferred' options: cells in green represent the NIST recommendations. Cells in grey denote atypical options, very unlikely to be implemented. The procuring Agency may additionally tailor these fields to indicate requirements for this acquisition. |
| 4 | Product as Tested/Declared: Product Identifier and detailed version information. If this SDOC reports original test results (page 2), include information about the specific product configuration(s) that was actually tested (e.g., hardware configuration, operating system, etc). | | Test Suite Conformance and Interoperability columns identify capability sets for which a public test suite exists, and the versions applicable to USGv6-v1.0 test results. Major version v1 and all its minor versions are deemed acceptable. Over time, new versions will be added and older ones retired. There may be periods when more than one major version is acceptable concurrently. |
| 5 | Product Family: A list of other products that use the same, unmodified IPv6 stacks such that their USGv6 capabilities are identical in form and function to the specific product configuration above. Test labs are only required to affirm the results for specific products tested. Test labs optionally may affirm recognized product families. | | The supplier completes the adjacent Test Lab and Result Id column with the test lab acronym and unique result identifier (See Test Lab and Accreditor page on the Website). The buyer may opt to query results with the test laboratory using the specified Result Id(s). The supplier may opt to provide particular explanation of some results (partial results, additional options) in which case reference to note on an attached page 3. (e.g. "See Note# N"). See the USGv6 testing website to identify the test lab, and find contact details. |
| 6 | USGv6 Capability Summary: The USGv6 stack implementation summary as identified by the '+' notation described in the USGv6 profile, Appendix A. For each IPv6 stack implementation in the product, a distinct Stack Id and reference to the attached Results Summary page (Page 2). | | Cells marked Self Test have no associated public test suite. If implemented by the supplier, the required adjacent annotation is " <i>Self Declaration</i> ". Note that vendors declaring support for such a capability are declaring support for the associated specific requirements in the USGv6 Profile. |
| 7 | Self Contained or Composite SDOC If this SDOC relies on the test results of other distinct products, list the Supplier & Product ID/Stack IDs referenced and attach those original SDOCs to this one. | 12 | Additional Options Tested Vendor checks if it is desired to record tested options not part of the 'Musts' in the profile. Explanations on the page following the results summary. Headings and Special Notations as described. |
| 8 | Additional Declarations / Attachments: List the supplier / product ID / Stack ID of any test results of composite components referenced by this SDOC. | | Options for Test Lab and Result Id: Currently 3 cases: (1) the test lab acronym and alphanumeric Id of the result set as assigned by the test laboratory; (2) 'Self declaration' denoting the supplier attests to adequate QA testing of the capability; (3) See attachment or note 'N', where the supplier explains variations in greater detail. |
| 9 | Supplementary Attestations Suppliers disclosure of IPv6 only capabilities; multiple stacks present; product family applicabilities. These are not included to qualify or disqualify a product from purchase considerations, but to inform network administrators of potential configuration options relevant to USGv6 interoperability. Check all that apply. | 13 | Stack-1 Notes Instructions: The supplier may choose to use the Notes (page 3) in order to clarify unsupported features or non passing results. Each Note # must reference the same Note # from Page 2. |
| 10 | Signature Block: Wet ink signature of the responsible product manager, dated. Printed name and position title on the line below. | | Complete the Note by including the Spec/Reference and Section (i.e. RFC or USGv6 Profile version), USGv6-v1 Profile Requirements, Config Option (i.e. IPv6-Base), choosing Host/Router/NPD, and Test Selection table version along with Test Lab Result ID. The Discussion includes details about the test result that will be disclosed to the buyer. |

Further Description: <http://www.antd.nist.gov/usgv6/testing.html>, and NIST SP 500-267 USGv6 Testing Program Users Guide available at the website.