
Tolly Common Test Plan 1080: LAN Switch Power Consumption

**A best-practices guide to defining and evaluating power
consumption of Layer 2-3 and Layer 4-7
LAN Switches & SAN Switches**

TOLLY
common
TEST PLAN SERIES



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Introduction to the Tolly Common Test Plan Series

DEFINITION

The Tolly Common Test Plan series presents a collection of detailed test plans that are designed to help validate feature/function and performance characteristics of Information Technology products and solutions. The Common Test Plan can assist Information Technology professionals as well as technology vendors in conducting detailed, consistent assessments of product features and performance.

PURPOSE & SCOPE

The Test Plan document does not present a product feature “checklist” nor does it specify levels of achievement required to “pass” a given test. Rather, the purpose of the Tolly Common Test Plan is to provide a wide range of specific evaluation points - more items and elements than are likely required by any single user. Users of this document can select those tests and evaluation points that they find relevant to their environments.

Ultimately, the purpose of the Common Test Plan series is to reduce the amount of time and effort expended by end-users in the RFP process. While users may have some unique requirements, it is likely that there are many requirements that are common across a great many users. This document aims to identify and document those common requirements and, most importantly, how to quantify how well a device or solution meets a given requirement.

This Test Plan document is a “living document” to which tests are added over time. Thus, any document should be considered a subset of all possible tests rather than a comprehensive collection. We welcome suggestions for additional areas to be covered either within this document or of other technologies.

DEVELOPMENT

This document draws upon expertise from The Tolly Group as well as invited input from leading technology vendors and end-users. Any vendor input is evaluated by Tolly engineers and analysts and included as deemed appropriate by the Tolly team. Vendors do not pay to provide that input and vendors do not sponsor this document. As with end users, some vendors may choose to license the document for their own internal use. Any published tests that reference Tolly Common Test Plans must be reviewed and approved in advance by Tolly.

AUDIENCE

This document is written for a technical audience, specifically, people who are tasked with conducting “hands-on” evaluations of the subject technology to validate compliance with customer requirements. While it is our goal to provide appropriate context for the Test Plan tests described herein, basic knowledge of the subject technology and testing techniques is assumed.

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Visit our website at <http://CommonTestPlan.org>

SUPPORT FOR THE TEST PLAN DOCUMENT

Depending on your license agreement you may have email, telephone or no support. Please reference your subscription purchase invoice, license agreement, and/or company coordinator.

UPDATES TO THIS TEST PLAN

This Test Plan is updated periodically. Depending upon the type of license you purchased, you may qualify to receive updated versions.

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Tolly Common RFP, LLC presents this Test Plan as an informational, instructional tool and is not responsible for how the reader makes use of it. Users should not make purchases based solely upon the information that they gather based upon running the tests described herein. While reasonable efforts have been made to assure that the tests procedures produce accurate results, neither accuracy nor applicability are guaranteed. Under no circumstances will buyer/user be entitled to any damages that exceed the licensing costs paid for use of this Test Plan.

Document Abstract - V1.6

This version of the Test Plan was released in November 2009.

This version covers power consumption measurement tests that are applicable to layer 2-3 LAN switches, layer 4-7 LAN switches (also known as load balancers or application switches or application delivery controllers). The tests and principles herein can also be applied, with some modifications, to benchmarking the power consumption characteristics of storage area network (SAN) switches.

This guide also addresses total cost of ownership with respect to power and provides resources and sample calculations. This version does not cover Power over Ethernet (PoE).