Reducing Network Traffic



O'REILLY®

Duane Wessels



Web Caching



Web Caching

Duane Wessels



 $\textit{Beijing} \cdot \textit{Cambridge} \cdot \textit{Farnham} \cdot \textit{K\"oln} \cdot \textit{Paris} \cdot \textit{Sebastopol} \cdot \textit{Taipei} \cdot \textit{Tokyo}$



Web Caching

by Duane Wessels

Copyright © 2001 O'Reilly & Associates, Inc. All rights reserved. Printed in the United States of America.

Published by O'Reilly & Associates, Inc., 101 Morris Street, Sebastopol, CA 95472.

Editors: Nathan Torkington and Paula Ferguson

Production Editor: Leanne Clarke Soylemez

Cover Designer: Edie Freedman

Printing History:

June 2001:

First Edition.

Nutshell Handbook, the Nutshell Handbook logo, and the O'Reilly logo are registered trademarks of O'Reilly & Associates, Inc. Many of the designations used by manufacturers and sellers to distinguish their products are claimed as trademarks. Where those designations appear in this book, and O'Reilly & Associates, Inc. was aware of a trademark claim, the designations have been printed in caps or initial caps. The association between the image of a rock thrush and web caching is a trademark of O'Reilly & Associates, Inc.

While every precaution has been taken in the preparation of this book, the publisher assumes no responsibility for errors or omissions, or for damages resulting from the use of the information contained herein.

Library of Congress Cataloging-in-Publication Data

Wessels, Duane.

Web Caching/Duane Wessels

p. cm.

ISBN 1-56592-536-X

1. Cache memory. 2. Browsers (Computer programs) 3. Software configuration management. 4. World Wide Web. I. Title.

TK7895.M4 W45 2001 004.5'3--dc21

2001033173

ISBN: 1-56592-536-X

[C]



Table of Contents

| Pre | face | ix | |
|-----|-------------------------|-----------------------------------|--|
| 1. | Intr | roduction 1 | |
| | 1.1 | Web Architecture | |
| | 1.2 | Web Transport Protocols | |
| | 1.3 | Why Cache the Web? | |
| | 1.4 | Why Not Cache the Web? | |
| | 1.5 | Types of Web Caches | |
| | 1.6 | Caching Proxy Features | |
| | 1.7 | Meshes, Clusters, and Hierarchies | |
| | 1.8 | Products | |
| 2. | How Web Caching Works21 | | |
| | 2.1 | HTTP Requests | |
| | 2.2 | Is It Cachable? | |
| | 2.3 | Hits, Misses, and Freshness | |
| | 2.4 | Hit Ratios | |
| | 2.5 | Validation | |
| | 2.6 | Forcing a Cache to Refresh | |
| | 2.7 | Cache Replacement | |
| 3. | Pola | Politics of Web Caching | |
| | 3.1 | Privacy | |
| | 3.2 | Request Blocking | |
| | 3.3 | Copyright | |

v



DOCKET

Explore Litigation Insights



Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time** alerts and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.

