



# MAXIMIZING THE ENHANCED CAPABILITIES OF PTC **SOLUTIONS IN THE SUN™ ENVIRONMENT**

Now's the time to make the move to Pro/INTRALINK 8.0 and a Web-based architecture. Here's why... and how.

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## Introduction

If you're currently using PTC Pro/INTRALINK 3.x to manage concurrent design teams, chances are good that you're considering an upgrade to Pro/INTRALINK 8.0.

Many Pro/INTRALINK 3.x customers are weighing the benefits of the sophisticated new features and capabilities of Pro/INTRALINK 8.0 against the added complexity and additional training requirements that come with the migration. And many are uncertain as to the best course of action.

The transition to Pro/INTRALINK 8.0 can deliver advantages that extend far beyond the new features and functions of Pro/INTRALINK 8.0. The move to Pro/INTRALINK 8.0 can actually be the catalyst for moving to a Web-based architecture and overcoming the limitations of the two-tier architecture of Pro/INTRALINK 3.x.

Pro/INTRALINK 8.0, combined with the powerful new functionality of the Solaris 10 OS and running on Sun's leading-edge servers, can put your organization in a position to take advantage of all of the benefits of next-generation architecture — today and tomorrow.

This paper describes the benefits of the transition to Pro/INTRALINK 8.0 and the architectural considerations of moving to Pro/INTRALINK 8.0 in the Sun environment.

## Overview: Pro/INTRALINK 8.0 Advantages vs. Pro/INTRALINK 3.x

Pro/INTRALINK is one of PTC's most successful products and is viewed as a very mature and powerful solution. With production-proven Pro/ENGINEER workgroup data management capabilities, Pro/INTRALINK is the industry standard solution for managing concurrent design teams. The latest version of Pro/INTRALINK, version 8.0, features a new Web-based architecture built on Windchill technology, plus major functionality and performance enhancements, as detailed below.

### Performance and Capability Enhancements

Pro/INTRALINK 3.x is a reliable and production-proven application for Pro/ENGINEER workgroup data management. However, the new release, Pro/INTRALINK 8.0, represents a significant advance on several fronts:

- **Higher Performance Over Wide-Area Networks (WANs).** Engineering teams are typically dispersed today, and with multiple teams accessing a single shared database high WAN performance is critical. According to test results:
  - Pro/INTRALINK 8.0 is 2.3 times faster than Pro/INTRALINK 3.x when considering interactions with Pro/ENGINEER while operating over a WAN
  - Pro/INTRALINK 8.0 is comparable to Pro/INTRALINK 3.x when considering interactions with Pro/ENGINEER while operating over a LAN
  - Pro/INTRALINK takes, on average, 40% fewer mouse clicks for the execution of common data management tasks
- **Efficient User and Group Management.** Pro/INTRALINK 8.0 support LDAP, so you can create and manage users in the Aphelion LDAP directory bundled with Pro/INTRALINK 8.0 or configure it to use an enterprise directory service that you maintain outside of Pro/INTRALINK 8.0.
- **Simplicity.** With the streamlined GUI and simpler architecture of Pro/INTRALINK 8.0, Pro/ENGINEER users can perform all data management commands directly within the Pro/ENGINEER Wildfire user interface. Data management functions such as downloading and uploading models are fully integrated with Pro/ENGINEER. That integration means all Pro/INTRALINK 8.0 data processing is virtually transparent to the Pro/ENGINEER user.
- **Comprehensive Pro/ENGINEER Data Management.** Pro/INTRALINK 8.0 delivers the Pro/ENGINEER data management capabilities of Pro/INTRALINK 3.x, plus full support for advanced Pro/ENGINEER capabilities such as Family Tables, Skeletons, and Simplified Representations.
- **Growth Path for Data Management.** Now that Pro/INTRALINK 8.0 shares the same architecture as Windchill 8.0, PTC customers have a single, consistent and unified data management path for current and future needs. And because of the unification of PTC's data management offerings, Pro/INTRALINK 8.0 customers who need broader enterprise data and process management can easily upgrade to Windchill PDMLink.

### Advantages of Moving to Web-based Architecture

While the client-server based Pro/INTRALINK 3.x solution very effectively manages a local Pro/ENGINEER workgroup environment, Pro/INTRALINK 8.0 introduces a Web-based architecture that can provide a whole new class of capabilities for Product Lifecycle Management (PLM) solutions, as described below.

- **Web Connectivity.** Today's collaborative design environment includes multiple contributors—distributed engineering organizations, non-engineering groups, manufacturing organizations. With its modern, Web-based, three-tier architecture—built using Web technology, Web-delivered Java™ and HTML end-user interface, middle-tier server logic and workspace logic, and Oracle database and external file storage back-end server components—Pro/INTRALINK 8.0 enables all stakeholders to have instant access to relevant data.

- **Scalability.** The Web-based Pro/INTRALINK 8.0 architecture accommodates more users and more complex processes than the previous client-server version. Pro/INTRALINK 8.0 is 100% scalable, so it can easily handle an increased data management workload when adding new users. And as your needs grow, that scalability means you can painlessly upgrade Pro/INTRALINK 8.0 to Windchill PDMLink 8.0 for broader enterprise data management and product development process management power.
- **Security.** Pro/INTRALINK 8.0 can be configured with one or more firewalls and a reverse proxy. It also supports single-sign-on identity management and provides the ability to encrypt database content for added security. Pro/INTRALINK 8.0 also has the ability to transport data in an encrypted format, helping your company comply with U.S. and international encryption laws and standards. You can activate SSL with the HTTPS protocol to encrypt sensitive Web traffic, use 128-bit encryption keys with SSL encryption, and store passwords in an encrypted format. Furthermore, Pro/INTRALINK 8.0 has the ability to withstand outside attacks. It can be configured to prevent client-side scripting, SQL insertion attacks, buffer overflow, and packet sniffing. Pro/INTRALINK 8.0 can also be integrated with intrusion detection software.
- **Secure Storage Distribution.** Pro/INTRALINK 8.0 provides the ability to distribute storage (vault/content replication) securely with guaranteed delivery—a capability Pro/INTRALINK 3.x does not support. Pro/INTRALINK 8.0 also supports local check-in for distributed storage (check-in of content files to replicated file vaults). This provides significant performance benefits for users on a WAN.

## Checklist: PLM Requirements that Call for a Web-based Architecture

The following business requirements for PLM make the move to a Web-based architecture particularly important. Your company should strongly consider the migration from Pro/INTRALINK 3.x to Pro/INTRALINK 8.0 if you require:

- **High availability:** Because PLM solutions create a single unified source for mission-critical product definition data, they must provide a means to ensure the availability of this data to enterprise users.
- **Security:** The needs for security are greater when sensitive product definition data is being made available over the Internet. PLM systems require the ability to deliver widespread user access as well as restrict the access based on user profile.
- **Scalability:** PLM systems must support users throughout an extended enterprise that includes suppliers and customers. While these systems often start small, they can grow quickly and may eventually need to support large numbers of users.
- **Cross-locale support:** PLM systems should provide the ability to connect to a Pro/INTRALINK Commonsense with versions of Pro/ENGINEER running in different languages.

The Web-based architecture of Pro/INTRALINK 8.0, combined with the sophisticated built-in availability features of the Solaris 10 Operating System and state-of-the-art Sun Fire™ servers, delivers all of these capabilities, and more, for PLM solutions.

## The Solaris 10 OS Advantage for Pro/ENGINEER Users

Solaris has always been more than just an operating system (OS). It is the industry's most mature, proven foundation for running mission-critical business solutions such as PLM. This has resulted in more users of Windchill based solutions being hosted on Sun/Solaris servers than all other platforms combined.

### **Solaris 10 Efficiency, Security, and Reliability Features**

With more than 3.5 million Solaris licenses, more than 1 million Java Enterprise System subscribers worldwide, and 188 integrated Open Source applications, it is clear that Solaris is a complete, mature, well integrated environment. Sun also has the #1 share for Oracle Database, the industry's leading database platform.

### **Why PTC Software Just Runs Better on Solaris**

PTC software runs at peak performance on Sun infrastructure in part because of the inherent performance and scalability advantages of the Solaris OS, and in part due to the ongoing collaboration between Sun and PTC engineers. Working together, Sun and PTC have optimized and tuned their products for each other's platforms.

For example, the first time Windchill technology was tested in a large scale environment with thousands of simulated users was at a Sun laboratory in Burlington, Massachusetts, in 1998. Since that time, Sun and PTC have been constantly testing Windchill on the SPARC®/Solaris stack and feeding test results back to the Windchill development organization to improve performance, reliability and scalability.

In addition, Sun's Opteron-based systems are certified with Windows to support a Windchill/Windows deployment with industry leading price/performance.

## Sun and PTC: Collaborative Alliance, Proven Solutions

No single vendor has the expertise or depth of resources to provide total solutions for each customer's specific PLM solution. Since its inception, Sun has focused on providing industry-leading platform infrastructure, and partnering with best-of-breed solution providers such as PTC whose products add value to the Sun platform.

Working together, Sun and PTC have developed complementary core competencies. For example, Sun's consistent, standards-based approach means PTC customers can:

- **Scale PTC Windchill and Pro/INTRALINK solutions to meet current and future needs.** The broad range of Sun SPARC/Solaris platform offerings for Windchill can be architected to support 10s, 100s, and 1000s of users while also meeting your specific IT requirements for system availability, reliability, performance and security.
- **Implement large-scale deployments of Pro/INTRALINK and Windchill.** Sun has considerable experience working with PTC's global services organization in helping them deploy Windchill-based solutions.

The cross-pollination between Sun and PTC has translated into higher performance and scalability for PTC products on the Sun platform, and that is why more Windchill clients are hosted on SPARC/Solaris than all other platforms combined.

### Migration Tools and Services from PTC

To ensure a fast and easy transition, PTC has developed a Pro/INTRALINK migrator tool for migrating Pro/INTRALINK 3.X data to Pro/INTRALINK 8.0. This tool allows data migrations to be stopped and resumed. In addition, PTC has developed a rich set of services to help customers move to Pro/INTRALINK 8.0, which include Pro/INTRALINK 8.0 pre-configured install and setup services, training services and data migration services.

## For More Information

For additional details about Sun and PTC, their alliance, and their products and services for PLM and ECM solutions, please see the following Web sites:

- <http://www.sun.com/solaris>
- <http://www.sun.com/x64>
- <http://www.ptc.com>
- <http://www.ptc.com/community/prointraLink8/index.htm>

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