# Introduction

## What is WebNow?

## Proven Business Cases

## Key Design Objectives

## WebNow Visual Experience

## Carefully Tailored Functionality

## Security in WebNow

## A Solid Architecture

## Scenarios for Deployment

## System Requirements

## Key Terms and Concepts
WebNow

Introduction

From the beginning, Perceptive Software, Inc., has architected its products to run over the Internet. ImageNow and WebNow both support standard TCP/IP architecture. This approach to design harneses the power of the Internet and gives customers distributed access to ImageNow documents anytime, and from anywhere. The benefits are that products in the ImageNow suite like WebNow have the flexibility to meet customer needs no matter their location, and to provide an experience that is timely, integrated and secure.

This white paper discusses WebNow, which uses HTTP to access documents in ImageNow via the Web. It includes proven business cases that demonstrate how WebNow is used in the real world. Also outlined are the key features, architecture and system requirements to run WebNow.

What is WebNow?

WebNow is carefully tailored functionality that provides customers with access to ImageNow documents over the World Wide Web. It is quick to deploy, easy to maintain, and no client installation is required.

Similar to the Web versions of popular industry e-mail products like Microsoft® Outlook® or IBM® Lotus Notes®, that provide just the features you need in a browser to send and receive e-mail, WebNow works in much the same way so you can view, annotate, and route documents in ImageNow.

You can also integrate WebNow directly with your host application to retrieve the documents you need in context with the data view in your primary workspace. Multiple search options are also available to help you conduct advanced searches on document objects in the ImageNow repository.

WebNow runs on UNIX®, Apple® Mac OS®, and Microsoft® Windows®. To complete more in-depth tasks like capturing documents or defining index keys, users, and groups, ImageNow Client is the product to use. However, WebNow is the perfect client for that broad group of users who need focused functionality that is best delivered via the Web.
Proven Business Cases

To maximize productivity, improve service, and enhance profitability, the following business cases demonstrate direct savings and other returns on investment when WebNow is built into the network enterprise.

Maximize Productivity
Georgia Institute of Technology
Remote staff access documents anytime from anywhere.
- Reorganized campus business processes to be more customer-oriented and improve departmental workflow
- Streamlined invoice approval cycle and enabled next-day payment
- Quickly responded to customer inquiries with instant access to imaged documents
- Easily monitored invoice status and reallocated workload to boost staff productivity by almost 20%

Improve Service
Bullet Freight Systems, Inc.
Customers and vendors track the status of their shipments or invoices securely over the Web.
- Timely, next day access to important documents, which improved billing cycle and collections
- Direct access to paperwork hastened delivery process
- Enabling “self-service” for customer delivery verification drastically reduced phone support traffic
- Prompt response time and quality service ensured customer satisfaction

Enhance Profitability
Ben E. Keith Company
Improved productivity, enhanced customer service, and lower cost of operation yield greater profits.
- Scanned documents quickly available companywide
- Easily and cost-effectively integrated with PeopleSoft® to deliver images directly from any screen
- Sales and other departments use WebNow to view documents anytime from anywhere and deliver superior customer service
- ImageNow’s ease of use and the comprehensive training provided by Perceptive Software eliminates maintenance and upgrade costs, which in turn enable vendor independence

Immediate and Measurable ROI
Deploying WebNow brings direct cost savings and indirect returns that are immediate and measurable.

Savings include:
- Eliminated storage reduces operational expenses
- Accelerated accounting cycle speeds reimbursements
- Faster payment cycle helps you take advantage of available supplier discounts

Indirect returns include:
- Overall customer satisfaction is greater
- Improved vendor relationships and internal company communication
- Increased job satisfaction when employees find themselves working on more strategic initiatives
Key Design Objectives

WebNow was designed to provide access to the ImageNow repository via an interface that is familiar and easy to use, available to all users regardless of platform, effortless to deploy, and integrates tightly with your core business applications.

User-Centric: A fast, familiar, friendly interface that is core-task oriented. A goal for WebNow was to build an intuitive design that resembles the experience when working in the ImageNow client.

Universal Access: Any user with an Internet connection to the WebNow server can access documents from anywhere worldwide. WebNow supports all major operating systems and Web browsers. See the System Requirements section for more details.

Ease of Deployment: No client installation, software maintenance, or client-side upgrades are required to run WebNow. You can install WebNow in one place and users can access it from anywhere with a URL.

Seamless Integration: Easily integrate WebNow with other software that supports the creation of a dynamic URL, and retrieve ImageNow data in context with core daily work.

WebNow Visual Experience

Familiar interface creates a seamless transition between ImageNow and WebNow. When you first open WebNow, you can see the similarity to ImageNow with its use of icons and familiar search grid controls.

Customizable interface includes saving preferences, and modifying search grid columns, toolbars and the position of the viewer window. You can also sort, view more than 10 rows at once and choose from custom column headings available in ImageNow.

Consistent, native user interface provides a visual experience to blend with your system. Depending on the operating system that you use, WebNow will adopt the color schemes and UI style elements of each respective platform.

Figure 1: WebNow blends with the look and feel of your system.
Carefully Tailored Functionality

Integration

WebNow offers single-click access to document objects in the ImageNow repository from any application that can open a browser using a hyperlink.

When integrating WebNow via a URL, you can configure it to pass a stored query at runtime. The query could be SQL, full text, or ERM. When WebNow opens, the query runs and returns targeted results based on the parameters set forth in the stored query.

Authentication is transparent to the user in the case of direct integration with another product. In addition, sensitive data will not display in the Web browser regardless of how the integration with WebNow is handled — via a standard URL link or a Web POST.

You can also e-mail a WebNow link, which will point the recipient to the most current version of each document ImageNow. WebNow links are time-savers — you don’t have to export or search for the documents you need.

Workflow

If you have workflow configured in ImageNow, you can click the workflow icon at the top of the WebNow interface to review workflow across queues. You can route documents and approve them as needed, and you can delete documents or change their status to “hold” or “pending.”

Search

WebNow has four search options in a tabbed page format: Simple, Advanced, ERM, and Content. Depending on the database you have installed, one or more of these options are available.

Simple is the embedded search option. Simple search gives users the ability to retrieve ImageNow documents without having to build complex search queries.

Advanced lets you conduct advanced searches by entering one or more SQL query strings in a text box. If you are not familiar with SQL queries or want to save time, you can search using pre-populated SQL queries.

ERM (Enterprise Report Management) lets you search against an ERM database, which indexes reports and complex print streams from multiple sources so you can search on that data more efficiently.

Stored User and Global queries give you ready access to pre-configured queries. Users can run queries created by other users, or they can create and run their own.

Content search lets you conduct full-text or natural language searches against Content Server™, which stores the keywords contained in ImageNow documents. There are many options for content search, including returning relevance, cached results and highlighting.

Viewer Tools

WebNow offers powerful viewer tools to help you work with document objects. Below are some of the features available to you from the PowerView window.

Multiple Document Interface: Want to view multiple pages at once or side by side? You can use WebNow’s MDI feature to satisfy all your viewing needs.

Figure 2:
View multiple documents at once in WebNow.

View non-raster images: In addition to supporting raster-based images like BMP, JPG, and TIFF, you can view non-raster images with WebNow like Microsoft® Word or Excel, or Adobe PDF documents. It is required that you have the associated plug-in installed on your computer for the non-raster image types that you want to view.

Annotations: Change color settings and widths of your annotation marks, and save those settings for next time. You can also move the annotations toolbar and reset it.

Image Manipulation: No different to working in ImageNow client, you can zoom, rotate and resize windows and add annotations using various colors and effects to comment on the document object.
Security in WebNow

No client clutter

No cookies, no caching, no code and no images are stored on your computer when you use WebNow.

The user experience is efficient and all of the document objects you retrieve from ImageNow reside on ImageNow Server.

Other than the fundamental requirements of the browser to call and render the document object when you request it, no additional client-side footprint is created.

Security attributes and authentication

WebNow uses ImageNow’s security model. All security attributes are inherited from ImageNow when a user logs into WebNow.

WebNow also inherits the authentication methods that are used in ImageNow, and there are four: Microsoft® Windows NT® domain authentication, native server operating system, SQL Authentication, and LDAP. By using Windows NT domain authentication, single sign-on is also an option.

Anonymous login

By using the anonymous login option, IT administrators allow clients and vendors to view select documents while restricting their access to other areas of WebNow.

Anonymous login lets you divide any number of your WebNow licenses between anonymous and standard login methods.

As an anonymous user you can search and view documents in ImageNow; however, annotations, workflow, and the ability to print and export are not enabled.

DES and SSL encryption

WebNow uses DES encryption to pass data between the Web application server and the ImageNow server, and uses a built-in data encryption method to pass data between the client browser and Web application server. Optionally, you can add SSL to provide additional encryption.

DES stands for Data Encryption Standard and is endorsed by the U.S. Department of Commerce as the recommended encryption method for commercial products. Perceptive Software uses Triple DES, which means that the data is encrypted three times by using three different keys.

Anonymous login lets you divide any number of your WebNow licenses between anonymous and standard login methods.

As an anonymous user you can search and view documents in ImageNow; however, annotations, workflow, and the ability to print and export are not enabled.

The built-in encryption method employed between the client browser and Web application server transfers data as a binary type. Plain text is not transmitted. Any potentially sensitive information is always protected and not exposed in the browser.

SSL stands for Secure Socket Layer and is an industry-standard for securing socket-level communication. SSL can be employed on the Web application server to provide greater encryption between the server and the client’s Web browser. SSL is inexpensive and easy to maintain. To use SSL with WebNow, you will need to purchase an SSL certificate.
A Solid Architecture

Scalability

WebNow supports a distributed processing model. It can install on a separate machine, and you can run it on multiple servers.

An N-tiered architecture supports WebNow, which means that it can scale and distribute data resources in order to limit bottlenecks and protect ImageNow Server.

Client architecture

WebNow can run on any operating system running a browser that supports Java 1.4.2 or higher (marketed as Java 2), and you can use a variety of browsers such as Internet Explorer, Netscape Navigator™ and Mozilla Firefox.

If you are running Microsoft Windows and do not have Java 2 installed, you may be asked to install it when you first run WebNow. UNIX users may also need to install Java 2. MacOS X supports Java 2; therefore, no installation is required. Earlier versions than Mac OS X do not support Java 2.

To run Java 1.4.2 or higher, the Sun Microsystems® Java Runtime Environment (JRE) is required. The terms JVM and JRE are often used interchangeably. This paper uses the term JRE in all cases. For more details about JVM and JRE, refer to the Key Terms and Concepts section at the end of this white paper.

Prior to the release of WebNow 3.40, earlier versions of WebNow relied on the Microsoft Java Virtual Machine (MSJVM), which Microsoft no longer distributes or upgrades. Applications that use the MSJVM will not be adversely affected by the installation of Java 2.

Server architecture

WebNow requires a Java 2 Enterprise Edition (J2EE™) Web application server to communicate with ImageNow Server. The TCP/IP protocol is used to communicate between the Web application server and ImageNow Server. Communication between the WebNow client and the WebNow application server is handled by the HTTP protocol over TCP/IP. For a detailed description of HTTP and TCP/IP, refer to the Key Terms and Concepts section at the end of this white paper.

For detailed technical specifications including supported products and versions and other requirements, see the Product Technical Specifications for ImageNow 5.4x and WebNow 3.4x document. Ask your Perceptive Software representative for a copy.
Scenarios for Deployment

WebNow can be deployed in a variety of configurations based on your business needs, hardware resources, and usage patterns.

**WebNow Deployment Scenario 1: Intranet / Internet**

**Benefits:**
- Performance is faster because servers are consolidated on one computer.
- Easy to deploy – users install ImageNow, WebNow, and the Web application server on one server.
- This is the least expensive deployment scenario because you are using just the one server.

**Drawbacks:**
- Heavily-loaded servers can impact processor speed. It is suggested that you measure your processor load before choosing this option.
- If used in an Internet deployment, this is the least secure option because the ImageNow database is on the same server accessed by the outside world.

**WebNow Deployment Scenario 2: Intranet / Internet**

**Benefits:**
- Protects the ImageNow server.
- Facilitates load balancing.

**Drawbacks:**
- Uses more resources (two servers).
- Performance will be slightly slower because the server has to transfer data over the network.
System Requirements

WebNow communicates with ImageNow Server over a TCP/IP-based J2EE Application Server. It is a thin client application that lays down no footprint other than what the browser requires to render an ImageNow document.

There are five J2EE Web application servers available for use with WebNow: Macromedia® JRun™, BEA® WebLogic®, IBM® WebSphere®, Oracle® Application Server, SAP Netweaver and open-source Apache TomCat, which is not recommended unless you have an Apache TomCat specialist in-house.

WebNow runs on all operating systems that ImageNow Server does, in addition to Macintosh. For detailed specifications including supported product versions and other requirements, see the Product Technical Specifications for ImageNow 5.4x and WebNow 3.4x document. Ask your Perceptive Software representative for a copy.
**Key Terms and Concepts**

**TCP/IP**

The Transmission Control Protocol/Internet Protocol (TCP/IP) is an industry-standard suite of protocols designed for Wide Area Networks (WANs). TCP/IP is the primary transport protocol used in UNIX-based networks, and is fast becoming the primary transport protocol for Local Area Networks (LANs).

TCP provides connection-oriented communications for applications that typically transfer large amounts of data at once and require an acknowledgement for data received. TCP establishes a virtual connection between two hosts — the source and the destination.

IP is primarily responsible for addressing and routing packets between hosts and networks. A unique IP address is required for each host or network component that communicates using TCP/IP. The IP address identifies a system’s location in the same way that a street address identifies a house on a city block. Messages are then routed based on the destination of the IP address.

**World Wide Web**

The World Wide Web or “Web” is a system of Internet servers that allow for communication over the Internet. The Web is just one way to communicate over the Internet. Other methods include SMTP (sending e-mail), FTP (file transfer) and USENET (user discussion groups). The Web uses the HTTP protocol, along with browsers such as Internet Explorer and Netscape to share information.

**HTTP**

Short for HyperText Transfer Protocol, HTTP is the underlying protocol used by the World Wide Web and defines how messages are formatted and transmitted, including what actions Web servers and browsers should take in response to various commands. For example, when you type a URL in the browser and press ENTER, it sends an HTTP command out to the Web server directing it to fetch and render the page.

**Why store document objects as TIFF?**

The primary reason for why the makers of ImageNow choose TIFF (Tagged Image File Format) over other image file formats, like JPG, is because it is a “lossless compression” standard that does not reduce the quality of the data when it is compressed.

TIFF is an open standard file format endorsed by government, and is considered to be the preferred file format for storing scanned documents. TIFF is also fast to compress and decompress, which provides ImageNow with performance benefits.

TIFF is independent of the hardware platform and the operating system on which it renders, which means that TIFF makes very few demands upon its operating environment.

The algorithm used to compress a TIFF is optimized to squeeze out white space in a completely different way than JPG, and the result is a smaller file size. Over JPG and GIF, TIFF is also a superior choice for working with bi-tonal data (black and white).

**JVM and JRE**

The Java Virtual Machine (JVM) allows you to run Java-based programs on computers that run on various platforms, such as Microsoft Windows, UNIX, and Macintosh. JVM is a subset of the Java Runtime Environment (JRE). The JRE also contains the classes and code libraries that are required to deploy Java-based applications. You can download the JRE from Sun Microsystems at www.java.com.

**What is a document object in ImageNow?**

ImageNow can support more than 200 file types. Some include .pdf, .doc, .xls, .html or an image file format such as JPG or TIFF. When a document is captured by ImageNow via scanning, it is stored as a TIFF file and inherits characteristics that are typical of a standard object.
Copyright© 2006, Perceptive Software, Inc. All rights reserved. ImageNow and CaptureNow are registered trademarks of Perceptive Software, Inc.

Trademark Attributions

Microsoft, Windows, and IIS are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. UNIX is a registered trademark of The Open Group in the United States and other countries. Linux is a registered trademark of Linus Torvalds. AIX, WebSphere, and OS/390 are trademarks of International Business Machines Corporation in the United States, other countries, or both. Mac OS X and Safari are registered trademarks or trademarks of Apple Computer, Inc. Netware is a registered trademark of Novell Inc. JRun is a trademark of Macromedia, Inc. in the United States and/or other countries. Java 2, Solaris, and all Java-based trademarks are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both. SUSE and its logo are registered trademarks of SUSE AG. Turbolinux is a trademark of Turbolinux, Inc. WebServer is a trademark of Zeus Technology. WebLogic is a registered trademark of BEA Systems, Inc. Eudora is a registered trademark of QUALCOMM Inc. Other company, product and service names may be trademarks or service marks of others.