



The BiGuard SSL VPN Appliances

ERP Application Guide

- 1. What is ERP (Enterprise Resource Planning)?**
- 2. The current status of ERP**
- 3. Billion's solutions for several ERP usage scenarios**
 - A. Small to medium sized businesses**
 - B. Business enterprises**
 - C. Sales and marketing companies**
 - D. Manufacturing industries**
 - E. Newly established companies**

What is ERP?

ERP is short for Enterprise Resource Planning. ERP integrates all facets of business including planning, manufacturing, sales and marketing. As a unified system which contains resources from many areas, ERP lowers costs, provides customers with satisfactory solutions, allows for better decision making by the company and provide companies with a good return.

The current status of ERP

Many small to medium-sized companies are already well aware of the benefits of using an ERP system. Most of these companies are using technology to integrate ERP systems to synchronize different departments within the company and meet their needs for accessing the most up-to-date information upon demand. An ERP system has become an essential tool for many small to medium-sized businesses. So it is vital for their ERP system to be heavily protected during vital transactions to prevent information leaks that can cause great loss and damage to the company.

Billion's solutions for several ERP scenarios

Billion's BiGuard SSL VPN is the solution. BiGuard SSL VPN combines the router, firewall and SSL VPN (for secure connection) all into one device. It provides a total solution to companies utilizing ERP systems for those who require secure data communications and data transfer to and from an ERP system whether the system is accessed from inside the company, or remotely by employees out of the office or partners or vendors. All data communication can be done safely and securely through Billion BiGuard SSL VPN without worrying about the information being leaked.

A. ERP usage by Small to medium-sized businesses

Background and Requirements-

Currently, many small to medium businesses have already integrated an ERP system into their daily work, but most have no solution to securely protect their ERP system during remote logins. This can result in the loss of vital data during transmission to hackers and cost the company dearly.

During remote login by employees and customers to obtain and transfer data, the authentication method utilized by the remote PC will need to be encrypted to prevent hackers and viruses from attacking the company PC during connection. Vital information cannot be

allowed to be stored on any remote PC (e.g. any web pages that were browsed or cookies that were downloaded).

Because the ERP system and other internal systems in the company have not been integrated into one, employees have to remember the different methods to access each of these systems. Furthermore, when there is an update to a particular system, MIS personnel will have a hard time updating and configuring each system individually. Therefore, MIS personnel will need a solution, which will integrate all the different systems and combine the different database servers into one, while providing excellent security and easy maintainability. Most companies and their branch offices have different numbers and types of users, so there is a need to have a variety of devices to cater for each of the groups. Thus, a single solution is required to manage and update all these devices from a Central Management System (CMS).

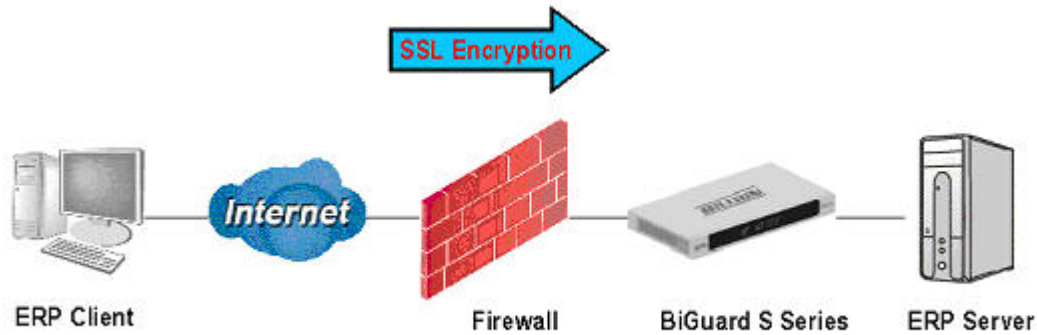
The Solution and the Advantages-

- Integrate router, firewall and VPN into an all in one solution to maximize value for small to medium-sized businesses.
- BiGuard has a built-in SSL hardware acceleration engine which provides fast, secure and stable remote connection.
- There is no need to install additional client software on the remote PC, which allows users to save time with the added advantage of having a secure connection.
- BiGuard's unified platform routes all the different internal servers and services through one device, which can be easily maintained.
- SSL's solves the security problems caused by remote ERP logins ensuring the safety of the router and the Internet.
- BiGuard SSL VPN provides complete data management and security solutions to meet a variety of company needs. Furthermore, it can be upgraded to meet more complex requirements as company expands its business and operations.
- CMS allows MIS personnel to easily maintain and control different BiGuard SSL VPN devices.

Target Client: Most small to medium-sized businesses

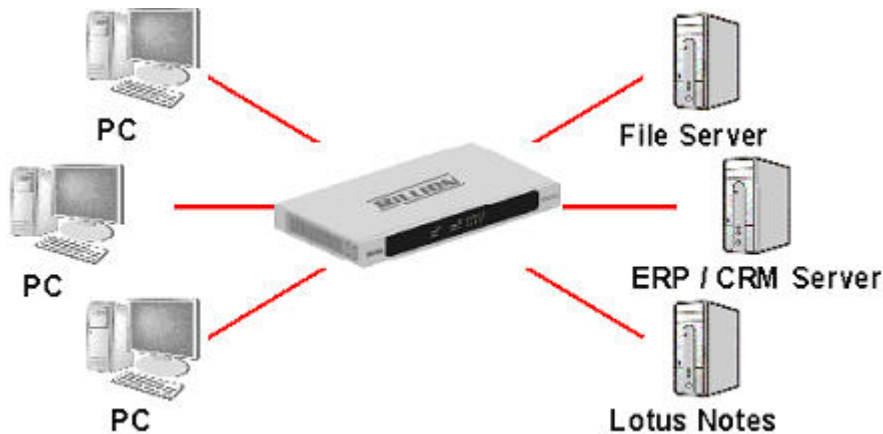
Solution 1

Position BiGuard SSL VPN as the WAN to the Internet and allow all the remote users to connect through HTTPS encryption methods. They will be able to access the ERP system to safely retrieve and upload data. As BiGuard SSL VPN supports hardware encryption technology, it can support multiple simultaneous connections all at once without hindering the connection speed of each individual user.



Solution 2

Position BiGuard SSL VPN as the LAN to the ERP system and other Intranet based systems to unify them all into one. System users will be able to easily access ERP/CRM, Lotus Notes and other file servers using the same method.



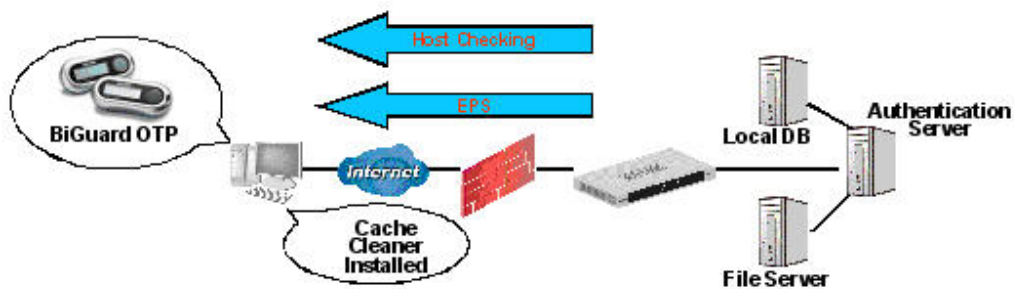
Solution 3

The BiGuard SSL VPN device supports the following authentication methods: Local Database, LDAP, Active Directory, Windows NT Domain and NTLM. MIS personnel can easily combine all the user accounts from all the different database servers all into one with a few simple steps. Different user access levels can also be set and easily maintained by utilizing BiGuard SSL. BiGuard SSL's Single Sign On feature will reduce the costly and time-consuming process of entering the same username/password again and again when accessing different services and applications.



Solution 4

BiGuard SSL VPN supports End Point Security/Host Checking, so the identity of the remote PC can be checked before allowing access from it. BiGuard OTP provides an added level of security with a one-time password, which must be entered each time the user attempts to access the system. These one-time passwords are generated randomly to ensure safe access. Cache Cleaner functions to effectively delete all information associated with the remote connection, so that no traces of vital work or information can be found on the public PC after each use.



Solution 5

CMS (Central Management System) allows MIS personnel to maintain all BiGuard SSL devices utilizing just one system. Through CMS, MIS personnel will be notified of any warnings and the connection status of the BiGuard SSL devices currently being managed by the CMS. Weekly reports and firmware updates for each device can all be done through the CMS.



B. ERP usage by Business enterprises

Background and Requirements-

Business enterprises often have a number of old networking equipment, database and systems lying around. As the enterprise grows in size, many of these devices face a maintenance problem because new equipment is being added and employees away from office often require access to these devices. Therefore, a solution which provides secure remote access and simple maintenance is needed to tackle the problem.

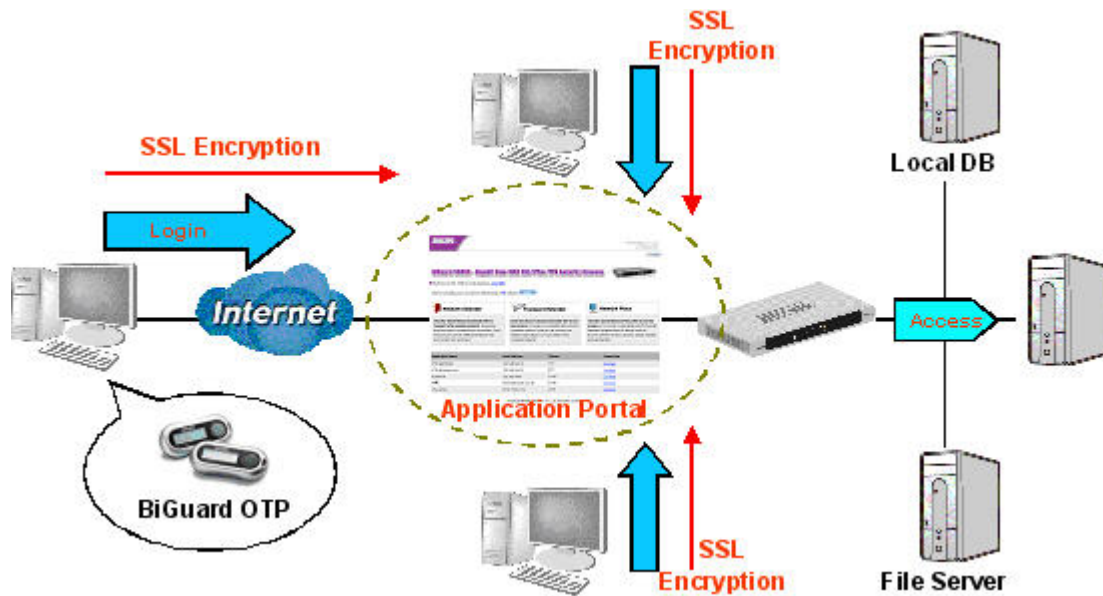
Example: A business enterprise has ERP, Lotus Note, SAP, CRM systems, an internal file server, Windows NT/2000/2003 Server, Linux Server, multiple new and old PCs spread across different areas. Looking at the list is already giving IT personnel an headache, and besides that, most employees are required to use different methods to access all of the equipment and platforms. So at times like this, MIS will need a solution to unify access to all of the equipment and platforms through a single web page. Employees won't even have to pre-install any client side software and will have secure access from anywhere that has an Internet connection and a standard web browser. MIS can also easily manage user access levels and keep an eye on the employees currently connected to the device.

The Solution and the Advantages-

- Secure access through one single web page to reduce the complicated access methods that are required for different services and systems.
- Billion's BiGuard SSL VPN provides secure and safe connection services and reduces the time required for IT personnel to maintain and configure these services.
- Employees away from the office or even overseas can access internal company resources and services through SSL to increase the efficiency and quality of their work.
- CMS (Central Management System) allows MIS to control and upgrade devices spread throughout the company and even overseas.

Target Client: Companies utilizing both new and old equipment and systems that wish to unify them utilizing a single a solution.

Scenario Diagram-



C. ERP system use by sales and marketing companies

Background and Requirements-

Sales and marketing companies often have employees who are on the move visiting customers. It is vital for these employees to provide and offer the latest pricing information to customers to gain an advantage over competitors. Sometimes data access is required during the weekends or off duty hours, so a solution which can provide these employees with secure remote access to the internal CRM or ERP system or their companies from anywhere at anytime is vital.

At the same time, employees working outside the company also need to constantly update information in the CRM system to allow access to those who need the information to be kept up-to-date and to supplying the company with timely information required to make optimal decisions about how to most effectively and profitably move their companies forward.

Many companies have already integrated a CRM system into their business, and sales employees can personally contact their assistant at the office to request the latest prices and updates. Because of security concerns by the most MIS personnel, CRM can rarely be accessed over the Internet; the enhanced security measures and encryption require by the CRM eat up too much of the company's computing capacity. Even when a CRM is readily accessible over the Internet, it cannot support very many remote users using the CRM system all at once. So, there is a need for a solution which will integrate the current CRM system and

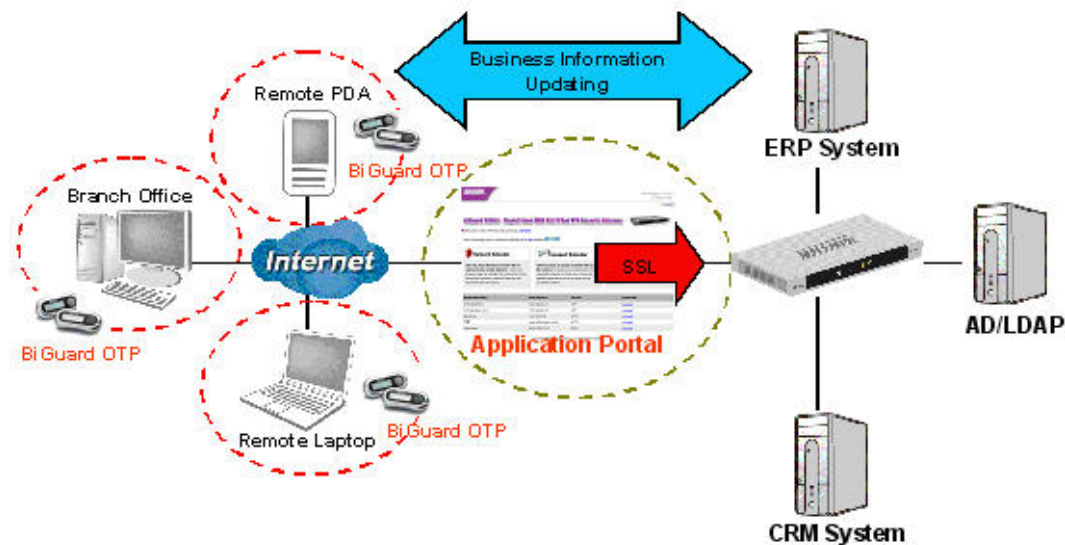
other services to provide many users with a secure remote access at the same time which is encrypted by hardware.

The Solution and the Advantages-

- Provide employees away from work with a secure remote access which is cost effective.
- By utilizing BiGuard, employees away from the office can remotely access the company's internal system and servers through a single web page which is so simple to use with no difficult learning curves.
- MIS personnel can set different users different access levels to easily maintain the system.
- BiGuard integrates the router, firewall and SSL VPN all in one device and is one of the most cost effective solutions available to small to medium-sized businesses.
- Through SSL, sales employees can both stay updated on the latest information and give the latest pricing information to customers to gain a competitive advantage.

Target Client: Sales and marketing companies or small to medium sized businesses

Scenario Diagram-



D. ERP system usage by manufacturing industries

Background and Requirements

Medium to large sized manufacturing companies normally integrate ERP and other systems into their day to day business activities to provide all departments, suppliers and customers the information they require to boost productivity, manage warehouse storage stock and reduce material costs.

However, most of these systems need to be accessed by various people in different departments, and some of them require access from the supplier's location which can be difficult and tedious to do. Furthermore, MIS will have trouble maintaining different systems at different locations. Companies in situations such as this will require a solution which provides all employees, suppliers and customers with access through a single device to improve efficiency while providing high end security and authentication at the same time. The solution most companies have been eagerly awaiting for is Billion's BiGuard SSL.

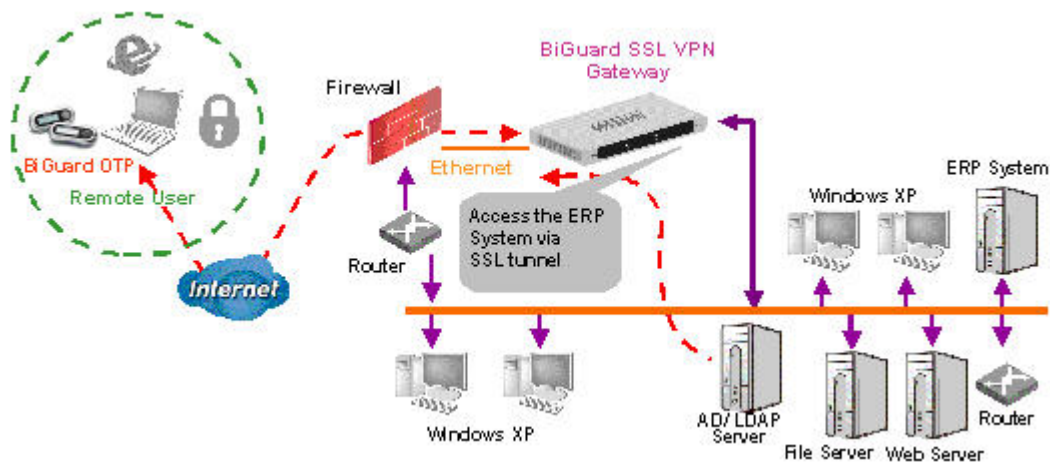
As operations and markets expand, many of a company's internal systems will become less effective as time goes on and this will create maintenance problems for MIS personnel. There will be big differences between the new and old systems resulting in problems for employees who need to be familiar with all the systems. So, besides worrying about safety issues during remote logins, MIS personnel will also need to worry about how to make the new and old systems to work effectively with each other. Therefore, a solution for integrating all of the new and old systems which is easy to maintain and upgrade is a must.

The Solution and the Advantages-

- Utilize an SSL to combine the different new and old systems which provides access via one single page to reduce the learning curve of employees and to save management time for MIS personnel.
- Using BiGuard to access remote ERP services will not require any client side software and it is safe and easy to use.
- It effectively integrates all the different platforms and systems all through one device and provides secure remote access services to all employees. It also reduces the time required for IT personnel to do system upgrades.

Target Client: Traditional manufacturing industries and electric or electronic related companies with or without an ERP system but utilizing a customized CRM.

Scenario Diagram-



E. ERP system use by a newly established company

Background and Requirements-

In a newly established company, where staff working outside the office need access to the company's head office through a VPN connection to obtain ERP database information, a CRM database and other information access will need to be established through a VPN connection in the shortest amount of time so that real work progress can be made.

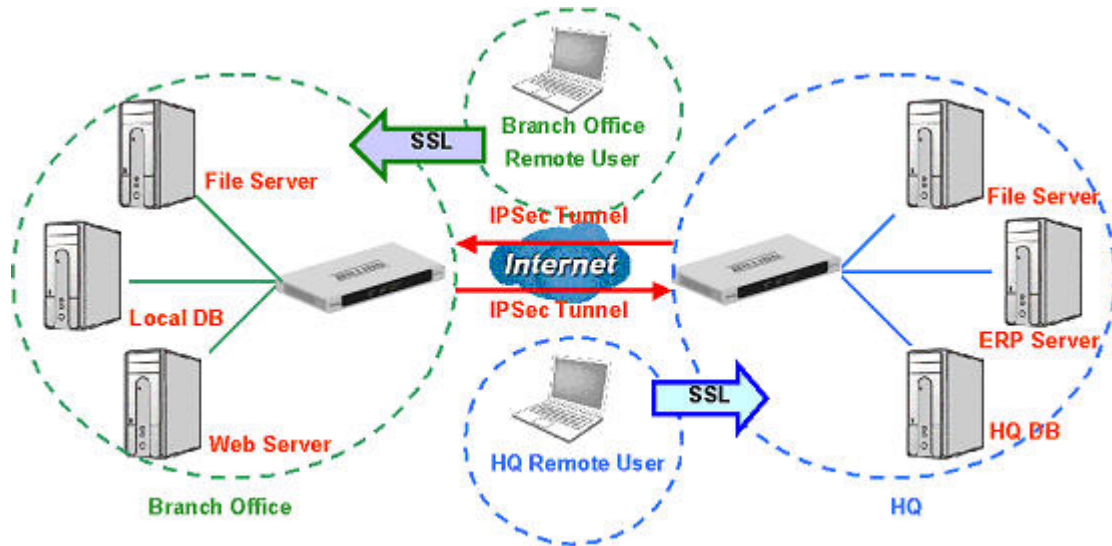
However, most newly established branch offices are very conservative and want a cost effective, yet secure and effective solution to provide the employees with safe access to the Internet and a secure VPN connection to the head office. Billion's BiGuard SSL is one such solution for newly established companies as it integrates router, firewall and VPN all into one device.

The Solution and the Advantages-

- Utilize a router, firewall and SSL VPN all in one device that and is simple to use and can reduce setup time and costs.
- Billion's BiGuard has IPSec VPN features which allow quick and secure access to information and systems back at the head office.
- Employees at branch offices can connect to numerous internal systems back at the head office through SSL's secure remote connection. Branch offices and the head office can rely on IPSec VPN connection to securely exchange and update all information required.

Target Client: Newly established branch offices which want to integrate and setup a cost effective secure remote connection to remotely access the head office in a short amount of time.

Scenario Diagram-



The BiGuard SSL VPN Appliances

ERP Application Guide

Copyright © Billion Electric Co., Ltd.

BiGuard Product Registration : www.biguard.com

Technology Support : support@billion.com

www.billion.com