

CISSP® 2015

Introduction

Biography

- William Wong
- CISSP, CISA, CISM, CGEIT, CRISC, PMP, PRINCE2, CobiT.....
- > 25 years in Financial Industry
- Working in IT of an international bank, responsible for Asset Management
- Part Time Lecturer

Domain 0 - Becoming a CISSP

■ Organization:

- International Information System Security Certification Consortium (ISC)²

■ Why?

- Increasing needs, increase knowledge, increase salary

■ Book CISSP exam:

- Link:
<https://www8.pearsonvue.com/testtaker/signin/SignInPage.htm?clientCode=ISC2>
- **Step:** Create Account > Sign in > Select CISSP > Schedule Exam > Language: English > Select Test Center > Select dates
- Can book the exam within one year
- **Cost:** US \$599

<https://www8.pearsonvue.com/testtaker/signin/SignInPage.htm?clientCode=ISC2>

PEARSON ALWAYS LEARNING

Language: [English](#) | [日本語](#) | [한국어](#) | [中文](#)

PEARSON VUE (ISC)²

ISC2 Online Services

Sign in

All fields are required.

Returning users, please sign in:

Username:

Password:

[I forgot my username.](#)

[I forgot my password.](#)

Sign In

New users, please sign up:

[Create a web account.](#)

Our secure website encrypts your personal information so that it cannot be read by unauthorized Internet users.

This website is best experienced using Microsoft Internet Explorer (IE) version 7 and above or Mozilla Firefox 3.5 and above. Please do not use the back button to navigate the site.

For your security, please remember to sign out of your account and close your browser when you finish your session.

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Choose yes

Pearson VUE - ISC2 Online Services - Windows Internet Explorer

https://www8.pearsonvue.com/testtaker/profile/create/SignUp/ISC2

File Edit View Favorites Tools Help

Google Search Share More >>

Sign In

Favorites Pearson VUE - ISC2 Online Services

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PEARSON VUE (ISC)²

ISC2 Online Service

1 Sign up or Sign in 2 Contact Information

Step 1: Sign up or Sign in

Required information is marked with an asterisk (*)

Enter information on this page in the following order

Privacy Policy Acceptance

☒ By accessing this website and checking the box you indicate your acceptance of Pearson VUE's, a business of NCS Pearson, Inc., [Privacy Policy](#), Terms and Conditions, and use of cookies to support your experience and by providing your personal information you consent to the collection, use, and transfer of your personal data to Pearson VUE, its authorized third parties, and our test program owners as the data controller. In addition, some test program owners have their own, possibly different, privacy policies.

Yes, I agree to the policies No, I do not agree to the policies

New users, please sign up for a web account

* Do you know your ISC2 ID? [What is this?](#) ☐ Yes, my ISC2 ID is:

Returning users, please sign in

If you have a username and password, please [sign in](#).

Done Internet | Protected Mode: On 100%

Pearson VUE - ISC2 Online Services - Windows Internet Explorer

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Google Search Share More >>

Sign In

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Language: English | 日本語 | 繁體中文 | 中文

PEARSON VUE (ISC)²

ISC2 Online Services

1 Sign up or Sign in 2 Contact Information 3 Additional Information 4 Create Account

Step 1: Sign up or Sign in

Required information is marked with an asterisk (*).
Enter information on this page in the Roman alphabet. (Alphanumeric)

New users, please sign up for a web account

* Do you know your ISC2 ID? [What is this?](#) ☐ Yes, my ISC2 ID is:
☐ No, I do not know my ISC2 ID.

Returning users, please sign in
If you have a username and password, please sign in.

Done Internet | Protected Mode: On 100%

Pearson VUE - ISC2 Online Services - Windows Internet Explorer

https://www.pearsonvue.com/testtaker/profile/create/SignUp/ISC2

File Edit View Favorites Tools Help

Google Search Share More >>

Sign In

Pearson VUE - ISC2 Online Services

Personal

IMPORTANT: YOU MUST ENTER YOUR LEGAL NAME EXACTLY AS IT APPEARS ON THE IDENTIFICATION YOU WILL PRESENT AT THE TEST CENTER. If there is not an exact match, you will not be able to take your test and you will not be reimbursed for any fees paid.

Title: Mr.

Example: Mr., Ms., Mrs., Dr.

* First Name / Given Name: Willis

Middle Names:

* Last Name / Surname / Family Name: WONG

Suffix:

Example: Jr., Sr., III, IV

Email

Most email correspondence is sent immediately, but some may take up to 24 hours. If you do not receive an email, please check your spam or bulk email folder. [We never sell email addresses.](#)

* Email: wxxxxx@hotmail.com

* Confirm Email: wxxxxx@hotmail.com

If you have questions about how your personal information may be used, please read our [Privacy Policy](#).

Internet | Protected Mode: On 100% 12:31 AM 10/7/2012

Contact Information

Pearson VUE - ISC2 Online Services - Windows Internet Explorer

https://www8.pearsonvue.com/testtaker/profile/create/ContactInformation/ISC2/248753

File Edit View Favorites Tools Help

Google Search Share More >> Sign In

Favorites Pearson VUE - ISC2 Online Services

Step 2: Contact Information

Required information is marked with an asterisk (*).

Enter information on this page in the Roman alphabet. (Alphanumeric)

Address and Telephone

Address Type: Home

* Country of Residence: Hong Kong

* City: Hong Kong

* District/Town: Sai Wan Ho

Street Name and Number: 99 ABC Street

Building Name and Room Number: ABC Building

Post Code: NA

Company: abc company

* Telephone: + 852 12345678
[Country Codes](#)

Extension:

Privacy Policy

If you have questions about how your personal information may be used, please read our [Privacy Policy](#).

Internet | Protected Mode: On 100%

Additional Information

Pearson VUE - ISC2 Online Services - Windows Internet Explorer

https://www8.pearsonvue.com/testtaker/profile/create/AdditionalInformation/ISC2/248753

File Edit View Favorites Tools Help

Google Search Share More >> Sign In

Favorites Pearson VUE - ISC2 Online Services Page Safety Tools >>

Sign up or Sign in Contact Information **Additional Information** Create Account

Step 3: Additional Information

Required information is marked with an asterisk (*).

Enter information on this page in the Roman alphabet. (Alphanumeric)

Additional Information

The following information is being collected on behalf of ISC2.

If you are a member or have previously registered with (ISC)² please enter your candidate/member number here.

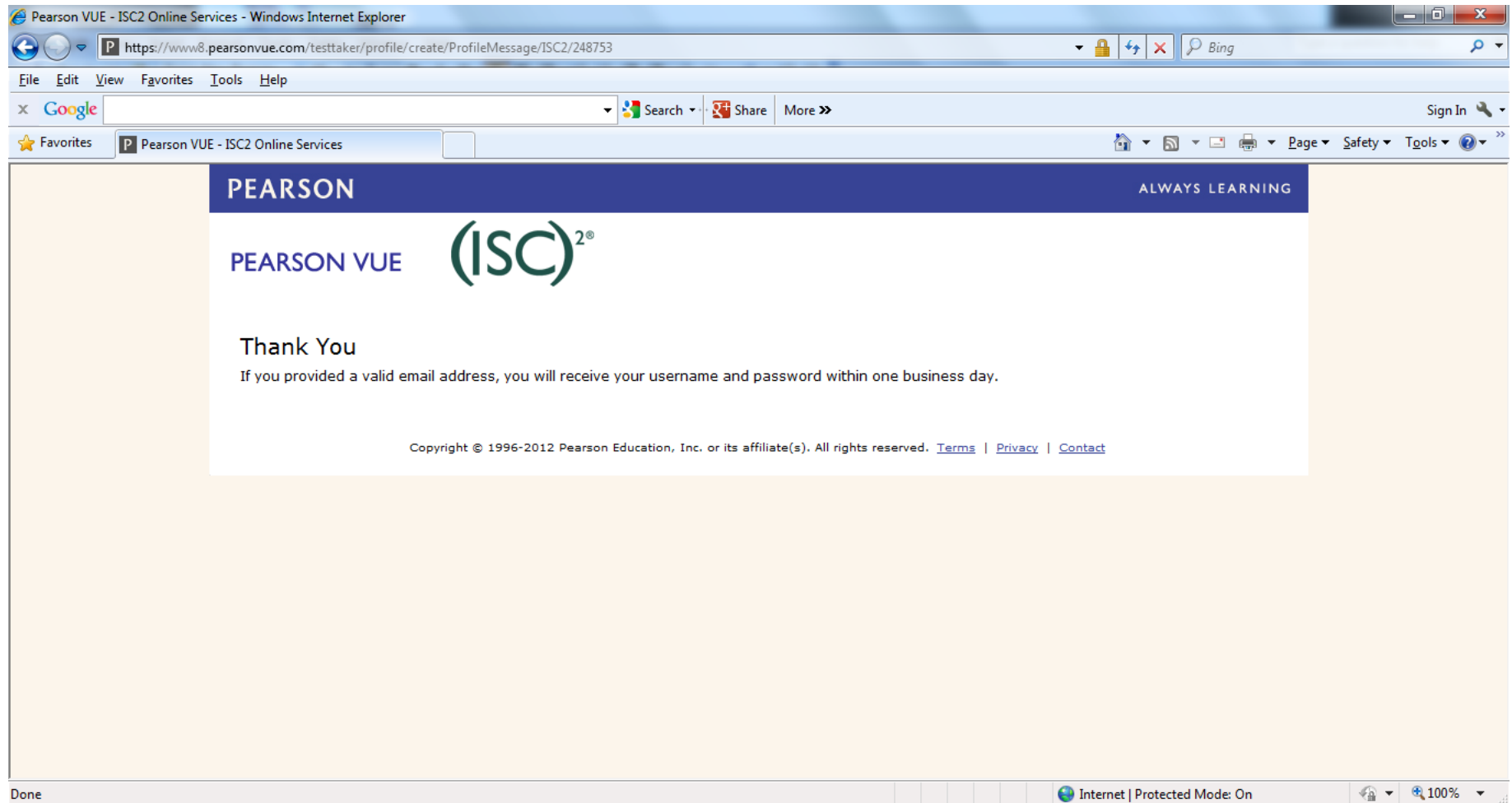
[Previous](#) [Next](#)

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Done Internet | Protected Mode: On 100%

12:33 AM 10/7/2012

Thank You



Security Question after sign in

Pearson VUE - Create Security Questions - Windows Internet Explorer

https://www8.pearsonvue.com/testtaker/signin/UpdateSecurityQuestions/ISC2/268

File Edit View Favorites Tools Help

McAfee

Pearson VUE - Create Security Questions

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PEARSON VUE (ISC)²

Signed In as: William Wong
ISC2 ID: ID Pending

Create Security Questions

*Pearson VUE is serious about account safety. That's why we're requiring all web users to create security questions. Select two questions below, one from each drop-down menu. Then type your answers in the provided fields and click **Save and Continue**. We have designed questions that would be hard to guess.*

All fields are required.

Security Questions [View Requirements](#)

Question

Answer:

Question

Answer:

Save and Continue

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Done Internet 100%

View Exam

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Language: **English** | 日本語 | 한국어 | 中文

PEARSON VUE (ISC)²

Home | [My Profile](#) | [My Order](#) | [Sign Out](#)

Signed In as: William Wong
ISC2 ID: ID Pending

Account Sign In successfully updated.

ISC2 Exams

Exam Catalog

[View Exams](#)

My Account

- > [My Profile](#)
- > [Account Sign In](#)
- > [Additional Information](#)
- > [Preferences](#)
- > [Exam History](#)

Upcoming Appointments

You do not have any appointments scheduled.

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Click CISSP

The screenshot shows a web browser window titled "Pearson VUE - Select Exam - Windows Internet Explorer". The address bar shows the URL: <https://www6.pearsonvue.com/testtaker/registration/SelectExamPage/ISC2/293>. The page content includes the Pearson VUE and ISC2 logos, navigation links (Home, My Profile, My Order, Sign Out), and a "Select Exam" section. A table lists various exams, with "CISSP" circled in red. The user is signed in as William Wong with an ISC2 ID that is pending.

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PEARSON VUE (ISC)²

[Home](#) | [My Profile](#) | [My Order](#) | [Sign Out](#)

Signed In as: William Wong
ISC2 ID: ID Pending

Select Exam

Exam Code	Exam Name
CAP	Certified Authorization Professional
CISSP	Certified Information Systems Security Professional
CSSLP	Certified Secure Software Lifecycle Professional
ISSAP	Information Systems Security Architecture Professional
ISSEP	Information Systems Security Engineering Professional
ISSMP	Information Systems Security Management Professional
SSCP	Systems Security Certified Practitioner

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Schedule the exam

The screenshot shows a web browser window titled "Pearson VUE - Exam Details - Windows Internet Explorer". The address bar displays the URL: <https://www8.pearsonvue.com/testtaker/registration/ExamSeriesDetailPage/ISC2/293>. The browser's menu bar includes File, Edit, View, Favorites, Tools, and Help. A McAfee security bar is visible below the menu. The page content features the Pearson VUE and (ISC)² logos at the top left. To the right, there are links for Home, My Profile, My Order, and Sign Out, along with the text "Signed In as: William Wong" and "ISC2 ID: ID Pending". The main heading is "Exam Details". Below this, a table provides exam information:

Exam:	CISSP: Certified Information Systems Security Professional
Price*:	USD 599.00
Currently Available Languages:	English, French, German, Japanese, Portuguese-Brazilian, Spanish-Modern

A note below the table states: **Prices listed are based on today's date and do not include local taxes which may be applicable.*

At the bottom right of the content area, there are two buttons: "Previous" and "Schedule this Exam". The footer contains the copyright notice: "Copyright © 1996-2012 Pearson Education, Inc. or its affiliate(s). All rights reserved." followed by links for Terms, Privacy, and Contact. The browser's status bar at the bottom shows "Done", "Internet", and a 100% zoom level.

English

Pearson VUE - Select Exam Language - Windows Internet Explorer

https://www8.pearsonvue.com/testtaker/registration/SelectExamLanguage/ISC2/293

File Edit View Favorites Tools Help

McAfee

Pearson VUE - Select Exam Language

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PEARSON VUE (ISC)²

Home | My Profile | My Order | Sign Out

Signed In as: William Wong
ISC2 ID: ID Pending

Select Exam Language

For: CISSP: Certified Information Systems Security Professional

What is your preferred language for the exam?

- ☒ English
- ☐ French
- ☐ German
- ☐ Japanese
- ☐ Portuguese-Brazilian
- ☐ Spanish-Modern

Previous Next

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Done

Internet 100%

Proceed to Scheduling

The screenshot shows a web browser window titled "Pearson VUE - Confirm Exam Selection - Windows Internet Explorer". The address bar displays the URL: <https://www8.pearsonvue.com/testtaker/registration/SelectExamConsecutivePage/ISC2/293>. The browser's menu bar includes File, Edit, View, Favorites, Tools, and Help. A McAfee security bar is visible below the menu. The page content features a dark blue header with the "PEARSON" logo on the left and "ALWAYS LEARNING" on the right. Below the header, the "PEARSON VUE" and "(ISC)²" logos are displayed. To the right of the logos are links for "Home", "My Profile", "My Order", and "Sign Out". Below these links, it says "Signed In as: William Wong" and "ISC2 ID: ID Pending". The main heading is "Confirm Exam Selection". A yellow box contains the text "Selected Exams:" followed by "Exam 1: CISSP: Certified Information Systems Security Professional | Language: English". At the bottom right of the main content area, there are two buttons: "Previous" and "Proceed to Scheduling". The footer of the page contains the copyright notice: "Copyright © 1996-2012 Pearson Education, Inc. or its affiliate(s). All rights reserved." followed by links for "Terms", "Privacy", and "Contact". The browser's status bar at the bottom shows "Done" and "Internet" with a 100% zoom level.

Select Test Centre

Pearson VUE - Test Center Search - Windows Internet Explorer

https://www8.pearsonvue.com/testtaker/registration/SelectTestCenterProximity/ISC2/293

File Edit View Favorites Tools Help

McAfee

Pearson VUE - Test Center Search

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PEARSON VUE (ISC)²

Home | My Profile | My Order | Sign Out

Signed In as: William Wong
ISC2 ID: ID Pending

Test Center Search

Exam Selection: CISSP: Certified Information Systems Security Professional | Language: English [Change Exam](#)

Find test centers near:
e.g., "5601 Green Valley Drive, Bloomington, MN" or "Paris, France" or "55437" [Search](#)

You can select up to three test centers to compare availability.

Test Center	Distance* Show km	Directions Get Directions
<input type="checkbox"/> 1 Pearson Professional Centers-Hong Kong Hong Kong Hong Kong Grand Millennium Plaza Room 503, 5th Floor 181 Queen's Road, Central 9999999	4.5 mi	Get Directions
<input type="checkbox"/> 2 Pearson Professional Centers-Guangzhou, China China Guangdong Guangzhou 218-222 Zhongshan 6 Rd., Rm.1904, 19/F., Jie Tai Plaza, Yue Xiu Dist., 510180	84.5 mi	Get Directions
<input type="checkbox"/> 3 Jing Tian International Group 80283 Kaohsiung 11F., No.265, Zhongzheng 1st Rd., Lingya Dist., Taiwan	390.0 mi	Get Directions
<input type="checkbox"/> 4 Pearson Professional Centers-Taipei, Taiwan 11070	502.4 mi	Get Directions

[Next](#)

Map data ©2012 Google, Tele Atlas - Terms of Use

Done

Internet 100%

Select a date

Pearson VUE - Choose Appointment - Windows Internet Explorer

https://www8.pearsonvue.com/testtaker/registration/CalendarAppointmentSearchPage/ISC2/293

File Edit View Favorites Tools Help

McAfee

Pearson VUE - Choose Appointment

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PEARSON VUE (ISC)²

Home | My Profile | My Order | Sign Out

Signed In as: William Wong
ISC2 ID: ID Pending

Choose Appointment

Exam Selection: CISSP: Certified Information Systems Security Professional | Language: English [Change Exam](#)

Test Center

Pearson Professional Centers-Hong Kong
Hong Kong
Hong Kong
Grand Millennium Plaza
Room 503, 5th Floor
181 Queen's Road, Central
9999999

[Change Test Centers](#)

Select Date [why can't I find an available date?](#)

August 2012							September 2012						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
5	6	7	8	9	10	11	12	13	14	15	16	17	18
19	20	21	22	23	24	25	26	27	28	29	30	1	2
26	27	28	29	30	31		3	4	5	6	7	8	9

Show available appointments on

Select a date on the calendar to see available appointments.

[Previous](#)

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Examination

■ Passing the exam

- 250 questions in **6 hours**
- Mostly MC, but a very few Drag & Drop, Hotspot
- 4 answers only and only one is correct
- 25 research questions, but don't know which
- 700 points out of 1000, weighed, difficulty count, not product or vendor oriented
- tested on security models and methodologies
- scenario or situation questions
- Passed: no score; Failed: score in each domain
- Hardcopy of language **dictionary** is allowed
- **Retest:** 1st failed 30 days; 2nd failed 90 days; 3rd failed 180 days; max 3 times per year
- After exam passed, have to get one holds ISC2 certification, such as CISSP, SSCP or CAP. The sponsor will vouch for your years of experience.

Certification

■ Certification

- 5 years experience in 2 or more domains
- 4 years experience in 2 or more domains + 4 years college degree
- 3 years experience in 2 or more domains + 4 years college degree + other certificate

■ Recertification 3 years later

- 120 Continuing professional education (CPE)

8 Domains (effective from April 2015)

1. **Security and Risk Management** (Security, Risk, Compliance, Law, Regulations, Business Continuity)
2. **Asset Security** (Protecting Security of Assets)
3. **Security Engineering** (Engineering and Management of Security)
4. **Communications and Network Security** (Designing and Protecting Network Security)
5. **Identity and Access Management** (Controlling Access and Managing Identity)
6. **Security Assessment and Testing** (Designing, Performing, and Analyzing Security Testing)
7. **Security Operations** (Foundational Concepts, Investigations, Incident Management, Disaster Recovery)
8. **Software Development Security** (Understanding, Applying, and Enforcing Software Security)

History

■ History:

- 1980 needs
- 1988 forming security certification program
- 1989 nonprofit corporation ISC² in North America: includes code of ethics, test specification, study guide and exam.
- Conflict of interest: set up course and exam, now you can learn in any training centres

CISA & CISM

- **ISACA membership:** US\$135.00 membership + US\$55 HK Chapter
- **Exam. Schedule:** The second Saturday in Jun/Sep/Dec
- <http://www.isaca.org/CERTIFICATION/CISA-CERTIFIED-INFORMATION-SYSTEMS-AUDITOR/REGISTER-FOR-THE-EXAM/Pages/default.aspx> OR
- <http://www.isaca.org> > Certification > Register for the exam
- **Exam Registration Fees**
 - **Early** registration: US\$440 / \$625 (Member / Non-Member)
 - **Final** registration: US\$490 / \$675 (Member / Non-Member)
- 200 multiple-choice questions in 4 hours in paper format

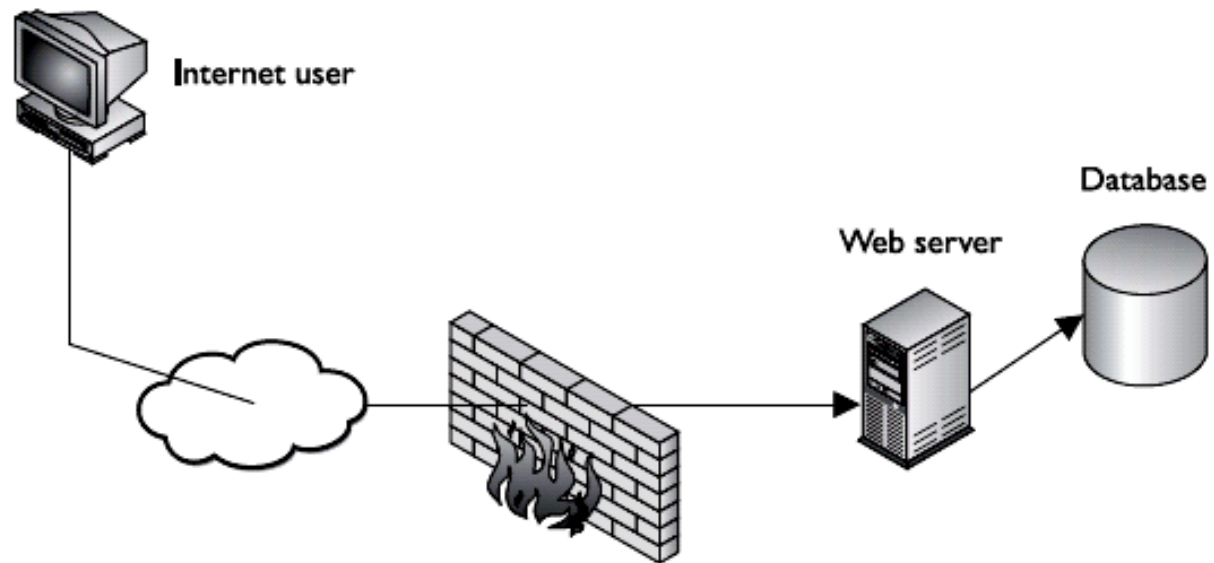
Security Trend

- **History:** mainframe, dumb terminal, closed environment, complicated
- **Now,** *internet*, IT knowledge, open system, powerful PC, *highly rely* on system to process information
- **Nation:** War; Cryptographic
- **Companies:** Sarbanes-Oxley (SOX), Regulation, Security Requirement
- **Hacking & Attacking**
 - trend to profit and commerce
 - Hacker danger: homework, easy to use tools, proliferation, GUI, quiet mode (IDS), population, continuous challenge
 - Product continue to grow in functionality, but not necessarily in Security
 - Selfish, but push security industry

Trend to more security

Generation 1: Internet & web activities

Figure 2-5
Attackers have easy access if databases are directly connected to web servers with no protection mechanisms.



Trend to more security

Generation 2: Two-tier architecture

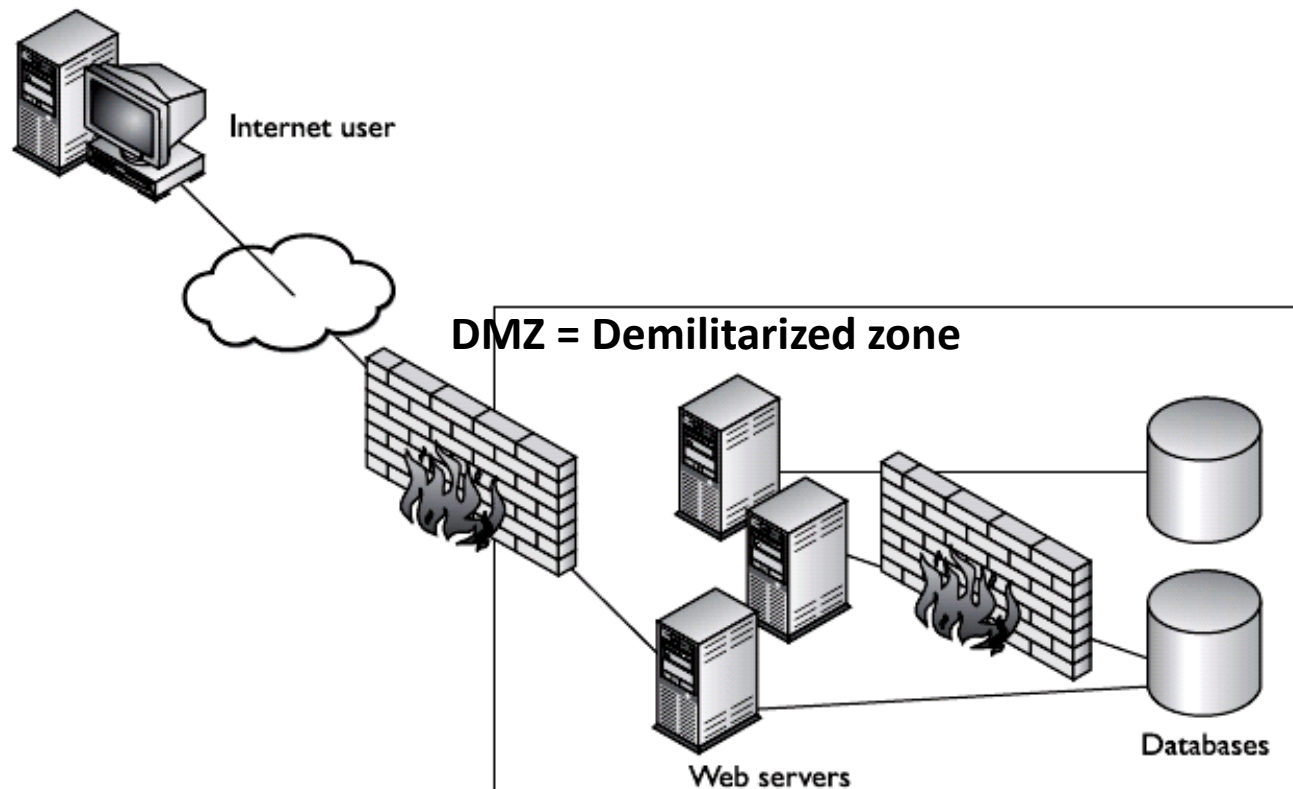


Figure 2-6 A two-tier architecture consists of a server farm and back-end databases.

Trend to more security

Generation 3: Three-tier architecture

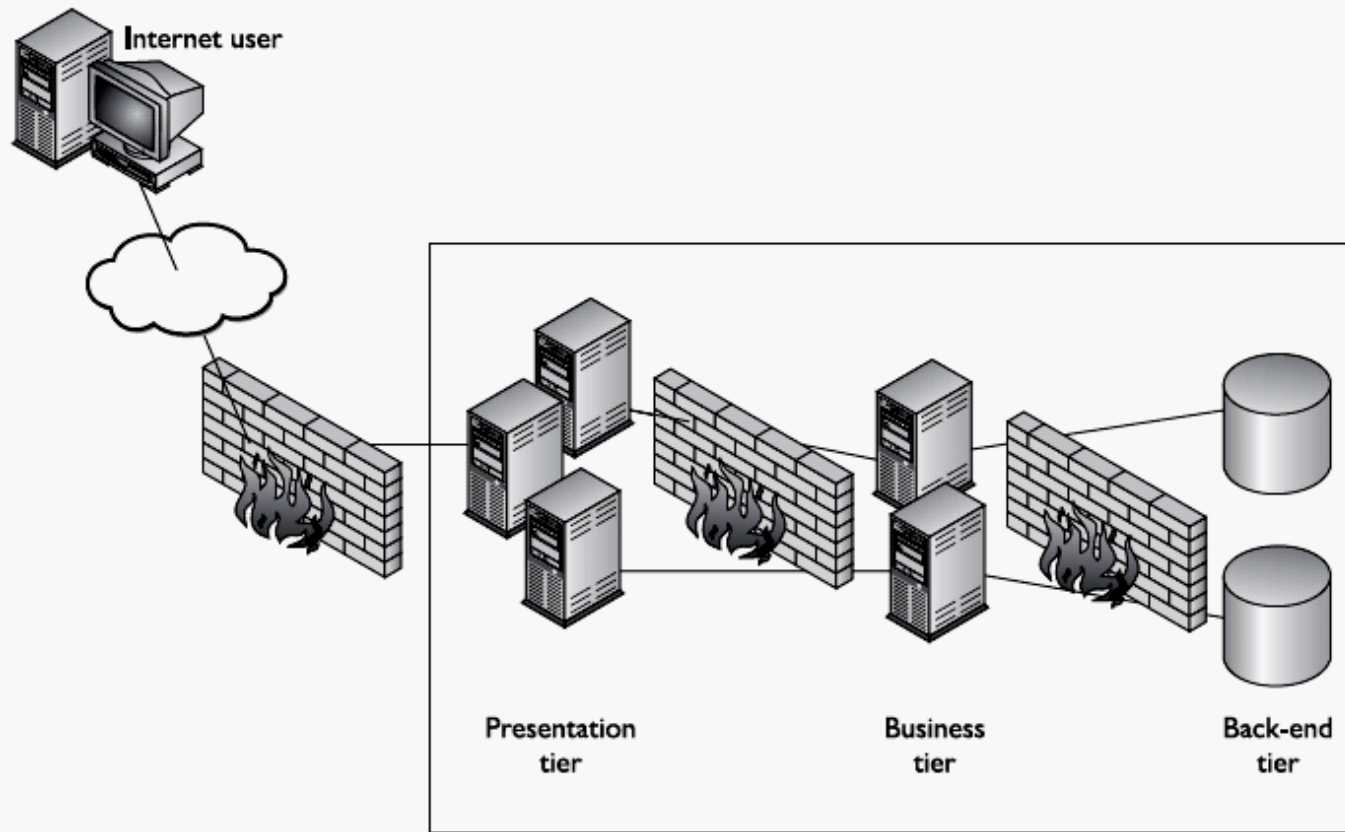


Figure 2-7 A three-tier architecture is comprised of a front-end server farm, middle servers running middleware software, and back-end databases.

Layered approach

■ A Layered Approach

- diff vulnerabilities in diff layer
- involve all parties, vendor, developer....
- implementing solution at different spectrum
- Spectrum can be coding, protocol, O/S, configuration, user activity, security program
- Create layers of barriers to attacker
- Example: antivirus on workstation, file server, mail server, proxy server etc
- Example: ACL, configure application, file, registry, os, login credential policy

■ A Layer Missed

- If a layer missed (eg IDS), may cause problem, as business keeps changing.

Politics and Laws

- Transborder issue about cryptography
- US: Trusted Computer System Evaluation Criteria (TCSEC)
- Europe: Information Technology Security Evaluation criteria (ITSEC)
- Law is behind the development of computer crime
- Organization for Economic Co-operation and Development (OECD):
 - 30 members, 70 others actively involved,
 - principle of free market, democracy, economic growth, ..
 - provides intergovernmental discussion, collecting and publishing information and short-term economic forecasts
 - not governing body, but provide guidelines, documentation, advice and statistics to help work together
 - many countries use information to shape their laws

- In 2013, US President Obama issued Executive Order (EO) 13636, Improving Critical Infrastructure Cybersecurity.
 - the National Institute of Standards and Technology (NIST) starts drafting a Cybersecurity Framework (CSF)
 - ISACA actively involved in the CSF development
 - Associated qualifications are announced by ISACA
 - [Cybersecurity Fundamentals Certificate](#)
 - Implementing the NIST Cybersecurity Framework using COBIT 5
 - CYBERSECURITY NEXUS (CSX) programs
 - Under developments

Education

- Many ways to learn and to certify
- No uniform, standardized way
- Different approaches: integrate with other IT component?