

# ***The Ten Commandments and Information Security Culture***

## **Towards the Human Firewall**

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# Towards the Human Firewall

## AGENDA

1. What is the problem?
2. Why a human firewall?
3. What is a human firewall?
4. How can this be achieved?

# Towards the Human Firewall

*The objective of this presentation is to provide some guidance towards answering these questions*

# Towards the Human Firewall

## 1. What is the problem?

- Lack of senior management involvement and commitment

# Towards the Human Firewall

## 1. What is the problem?

- BUT, strong indications that senior management is accepting their responsibility in this regard
  - Codes of Practice
  - Legislation
  - Corporate Governance

# Towards the Human Firewall

## 1. What is the problem?

- Senior management commitment only the start of the solution

# Towards the Human Firewall

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- Total involvement and commitment from ALL employees are required

# Towards the Human Firewall

## 1. What is the problem?

- Senior management commitment only the start of the solution
- Total involvement and commitment from ALL employees are required

**How can this be achieved?**



# Towards the Human Firewall

## 2. Why a human firewall?

- Employees are responsible for most security breaches – up to 80%
- Kevin Mitnick in *The Art of Deception*: “*The employees are the target!*”

# Towards the Human Firewall

## 3. What is human firewall?

Proper policies, procedures, rules, regulations  
(a framework of acceptable behaviour)



# Towards the Human Firewall

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Awareness of above by employees  
(knowledge of acceptable behaviour)

# Towards the Human Firewall

## 3. What is human firewall?

Proper policies, procedures, rules, regulations  
(a framework of acceptable behaviour)

+

Awareness of above by employees  
(knowledge of acceptable behaviour)

+

Total commitment of ALL employees to above  
(desire towards acceptable behaviour)

# Towards the Human Firewall

## 3. What is human firewall?

Proper policies, procedures, rules, regulations  
(a framework of acceptable behaviour)

+

Awareness of above by employees  
(knowledge of acceptable behaviour)

+

Total commitment of ALL employees to above  
(desire towards acceptable behaviour)

=

**Desired Employee Behaviour / Human Firewall**

# Towards the Human Firewall

## 4. How can this be achieved?

- Through the creation of an Information Security Culture amongst all employees

# Towards the Human Firewall

## 4. How can this be achieved?

- Through the creation of an Information Security Culture amongst all employees
- What would an Information Security Culture be?

# Towards the Human Firewall

## 4. How can this be achieved?

Common moral standards, respects, interests, ways of doing things, etc.

(a framework of 'acceptable' behaviour)

+

Knowledge about the above  
(educated and drilled till inherent to individual)

+

Commitment to abide to the above by everybody

=

**Culture**



# Towards the Human Firewall

4. How can this be achieved?

**Culture dictates Behaviour!**

# Towards the Human Firewall

## 4. How can this be achieved?

**How can a security culture be cultivated?**

# Towards the Human Firewall

## 4. How can this be achieved?

Analogy:

Security Culture vs Religious Culture

# Towards the Human Firewall

**The Moses Model** – Example from the Christian / Judaism religion

Christianity (like any other religion) has influenced the culture of many nations over many years – in fact it became a culture in many countries!

**How did this happen?**

# Towards the Human Firewall

## The Moses Model



### Religious Culture

God announced the commandments as to how He wants to be served (Ex 20:1)

# Towards the Human Firewall

## The Moses Model



### Religious Culture

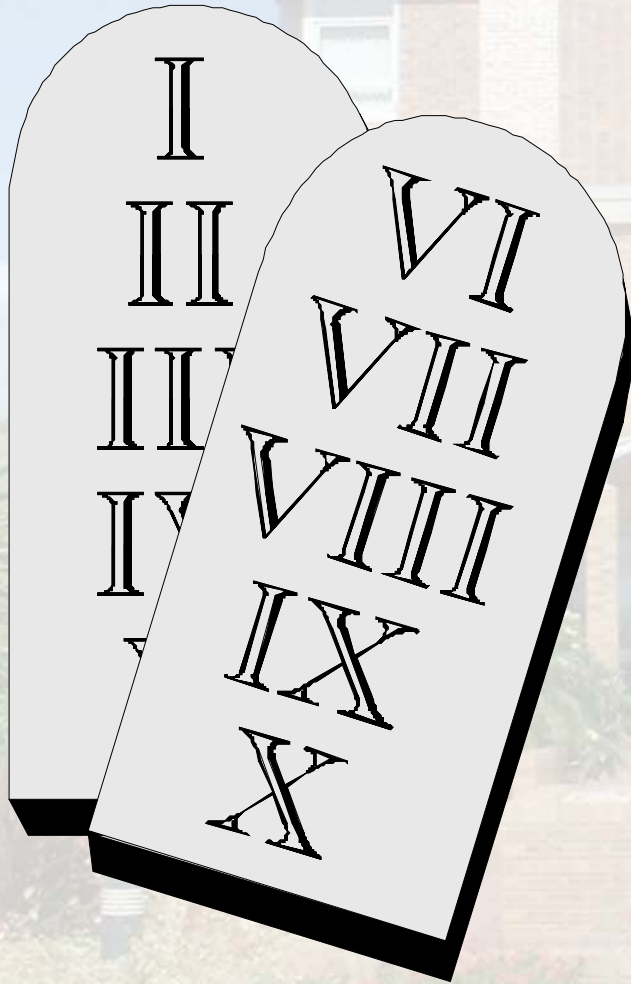
God announced the commandments as to how He wants to be served (Ex 20:1)

### Security Culture

Top Management must announce the way their employees must serve the organisation

# Towards the Human Firewall

## The Moses Model



### Religious Culture

Ten commandments were given (Ex 20:)

The ten commandments stayed static over thousands of years

# Towards the Human Firewall

## The Moses Model



### Religious Culture

Ten commandments were given (Ex 20:)

The ten commandments stayed static over thousands of years



### Security Culture

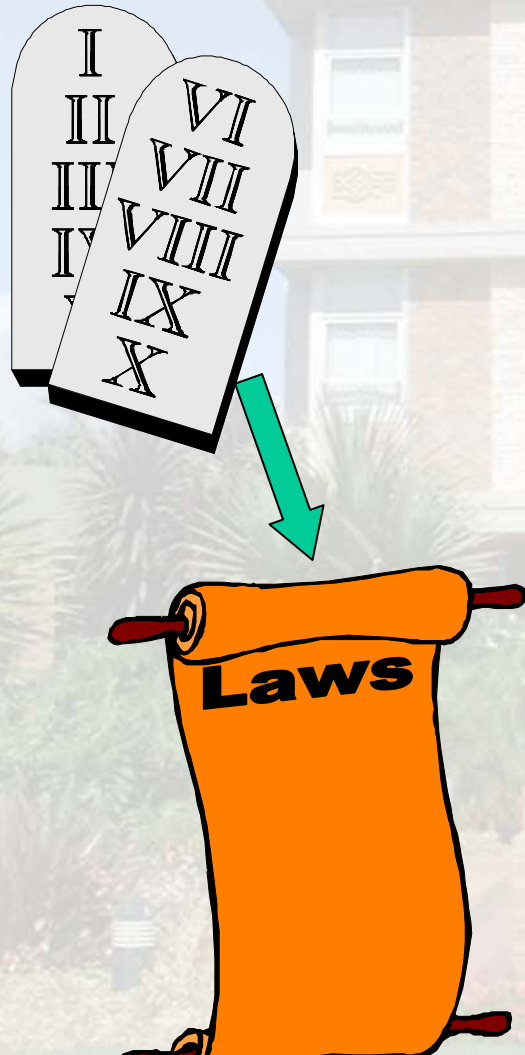
The Corporate Security Policy should not be too bulky

The policy should be fairly static over time



# Towards the Human Firewall

## The Moses Model



### Religious Culture

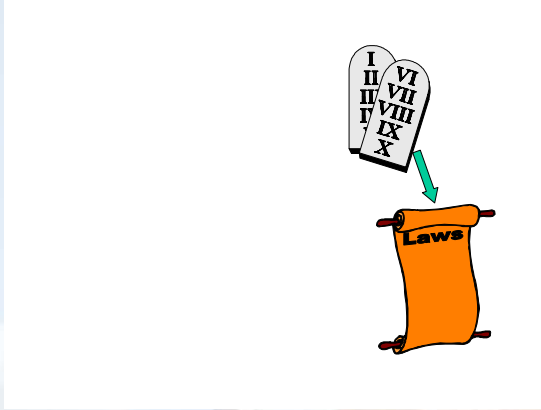
The Book of the Covenant (Ex 21-24) spells out many laws (613 in total)

These laws are based on the 10 commandments

These laws directed the lives of the people and ensured that it is in line with God's will (10 commandments)

# Towards the Human Firewall

## The Moses Model

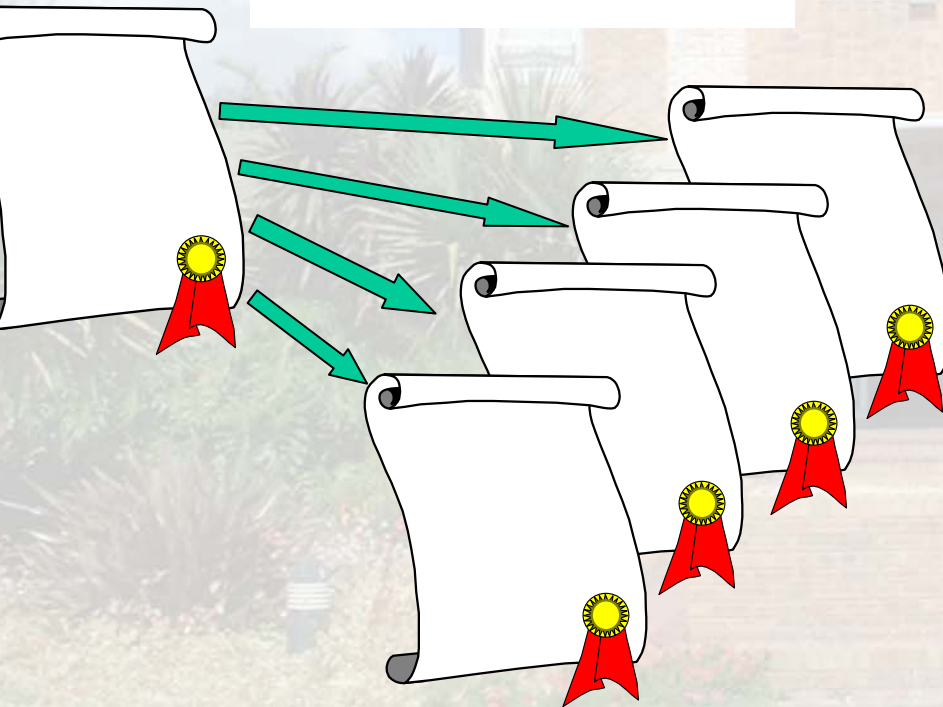


### Religious Culture

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### Security Culture

Lower level statements

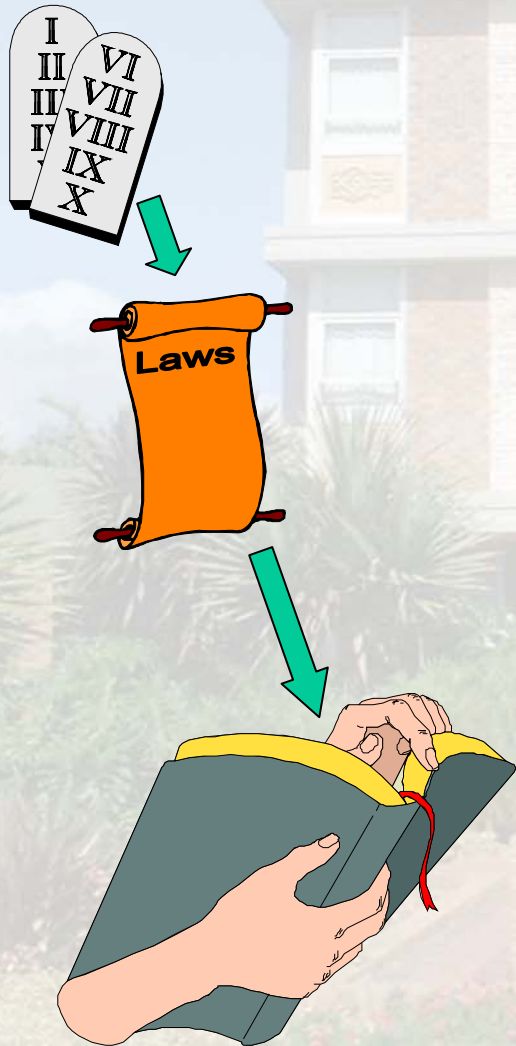
More specific

More dynamic

Quite detailed

# Towards the Human Firewall

## The Moses Model



### Religious Culture

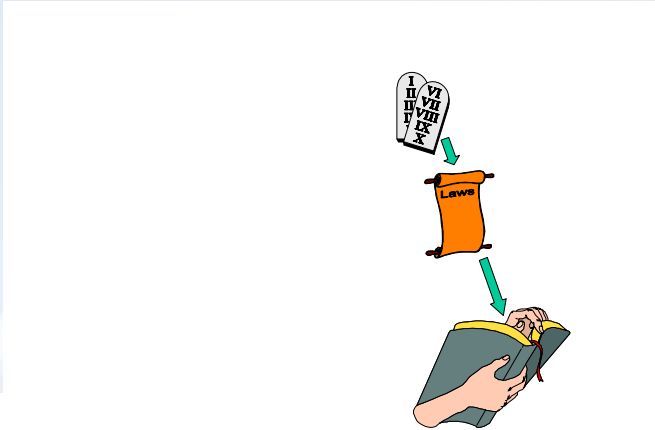
The laws are supported by a series of directions (Ex 25-32)

The directions stipulate *how, when and where* God must be served

The directions are grouped for different groups of people

# Towards the Human Firewall

## The Moses Model

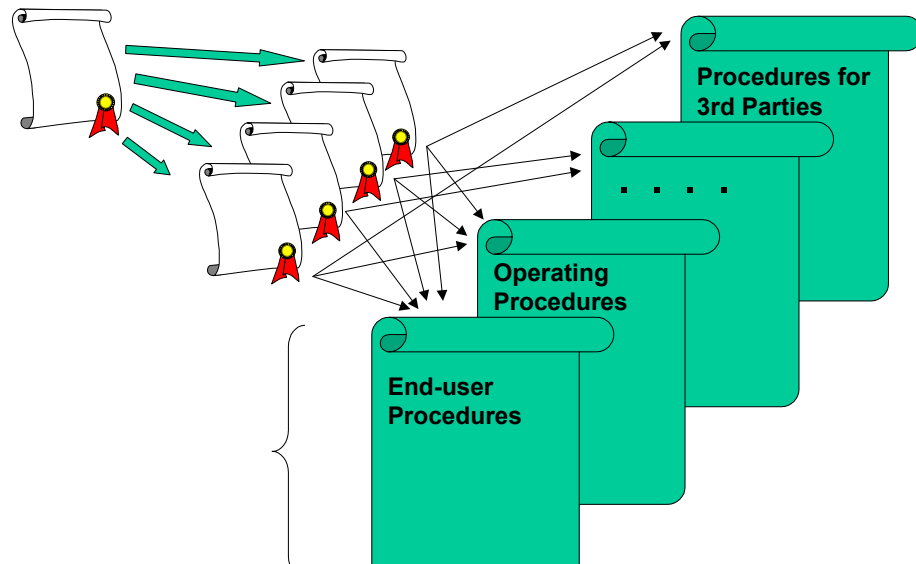


### Religious Culture

- The laws are supported by a series of directions (Ex 25-32)
- The directions stipulate *how*, *when* and *where* God must be served
- The directions are grouped for different groups of people

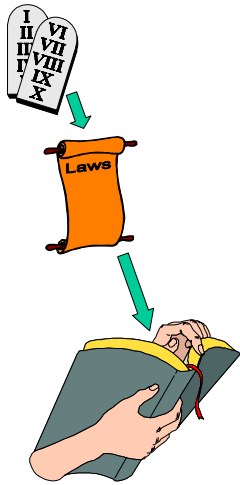
### Security Culture

- Dictating behaviour
- Non-technical
- Group specific



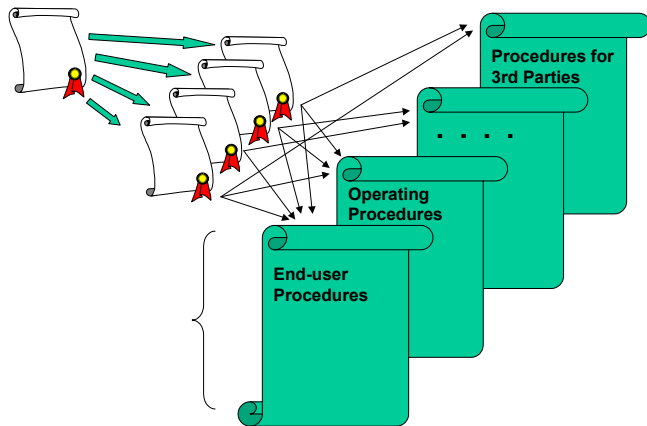
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## The Moses Model



### Religious Culture

The 'framework' of acceptable behaviour



### Security Culture

The 'framework' of acceptable behaviour

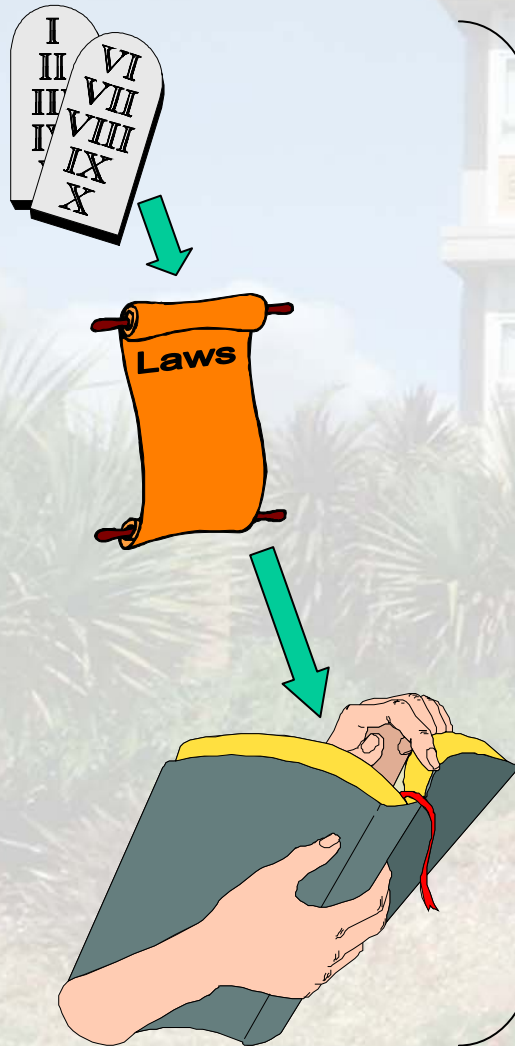
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## The Moses Model

### Religious Culture

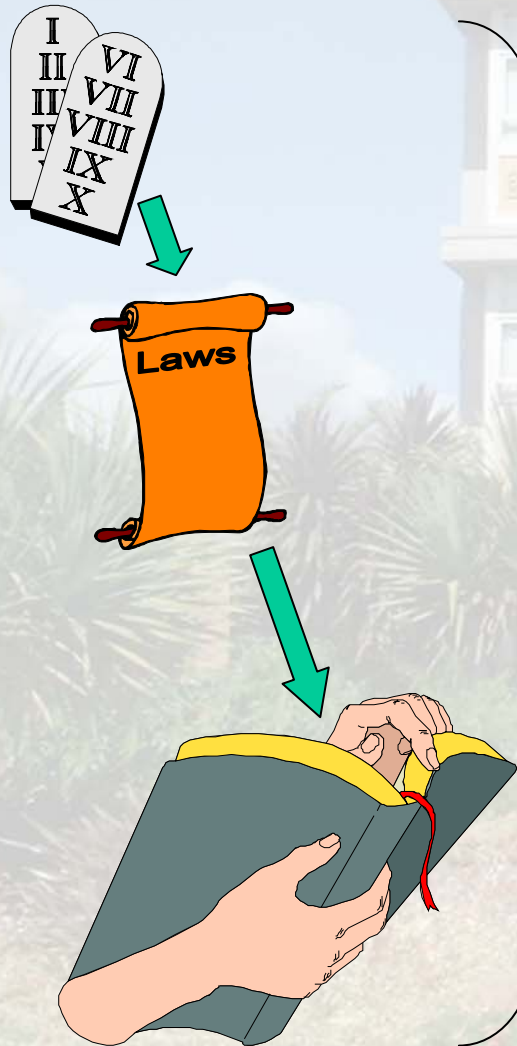
The commandments, laws and directions must:

1. “Never forget these commands”
2. “Teach them to your children”
3. “Repeat them”
  - when you are at home
  - when you are away
  - when you are resting
  - when you are working”



# Towards the Human Firewall

## The Moses Model



### Religious Culture

The commandments, laws and directions must:

4. "Tie them to your arms"
5. "Wear them on your foreheads"
6. "Write them"
  - on the door-posts of your houses
  - and on your gates"

(Deut 6:6-9)

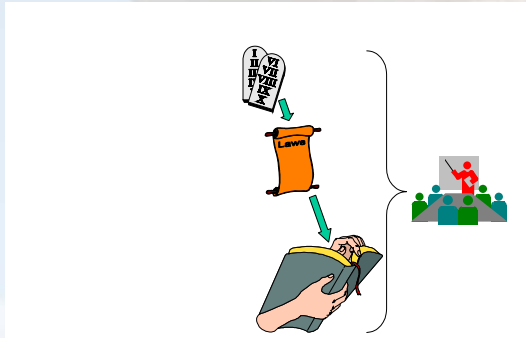


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## The Moses Model

### Religious Culture

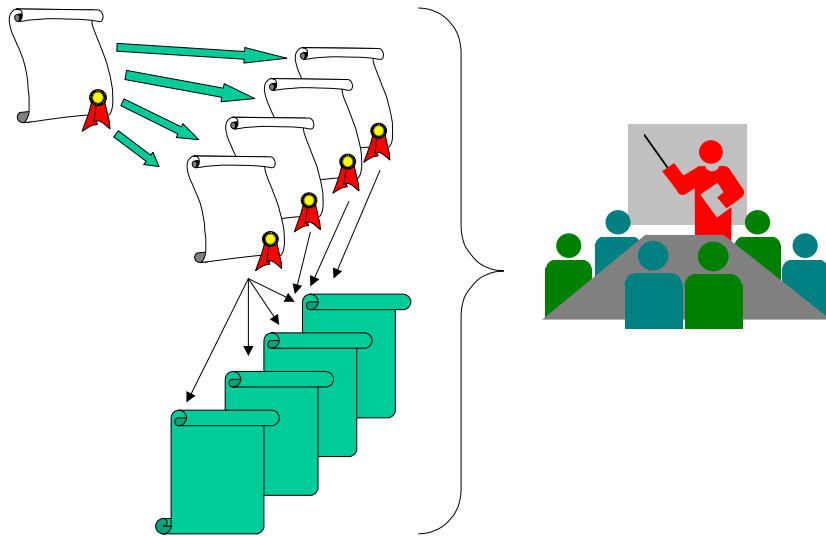
The commandments, laws and directions must be read and educated to the people (Deut 6:6-9)



### Security Culture

Security awareness and education

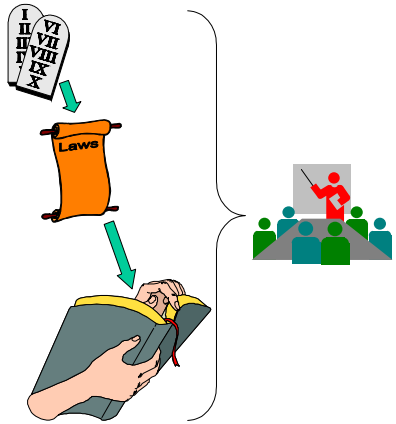
- Regular
- Continuous
- Everywhere
- Any time
- Reminders everywhere





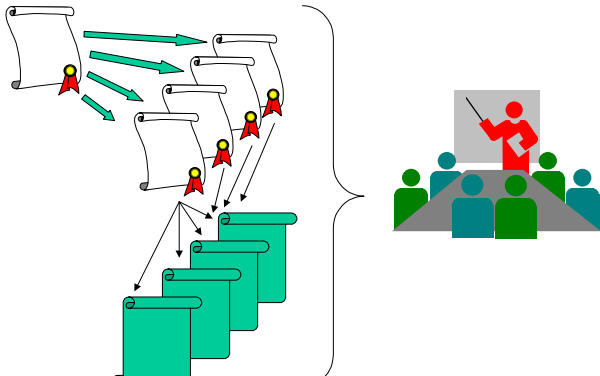
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## The Moses Model



### Religious Culture

The education towards acceptable behaviour

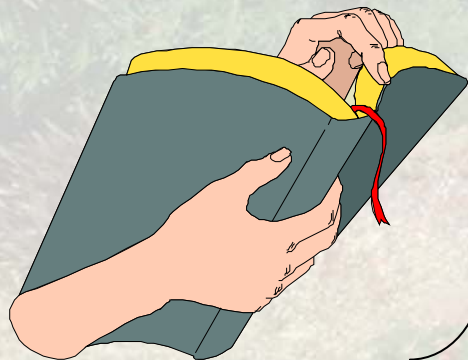
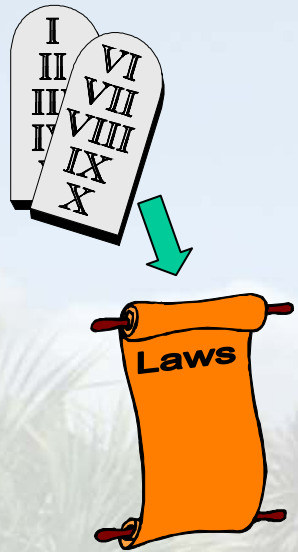


### Security Culture

The education towards acceptable behaviour

# Towards the Human Firewall

## The Moses Model

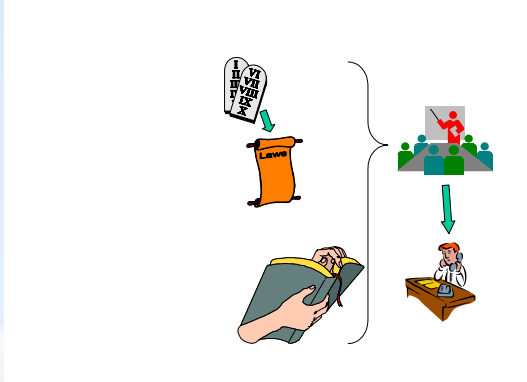


### Religious Culture

Failure to commitment  
lead to punishment  
(Deut 8:20)

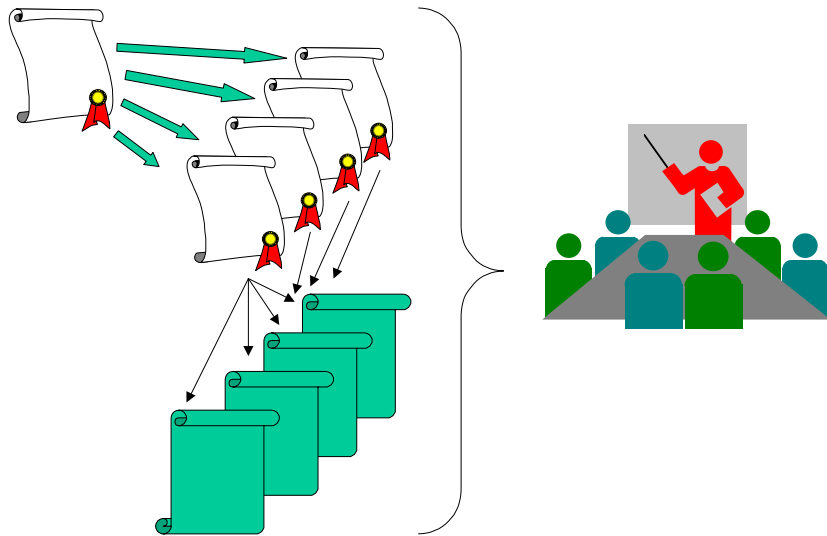
# Towards the Human Firewall

## The Moses Model



### Religious Culture

Lack of commitment lead to punishment (Deut 8:20)

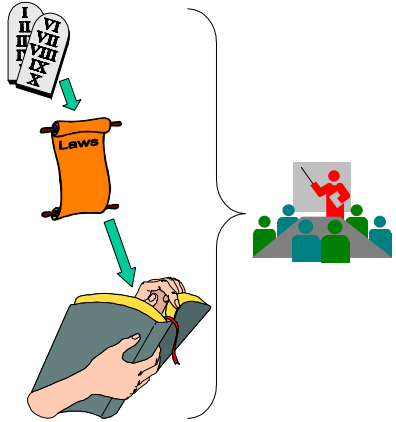


### Security Culture

Lack of commitment should lead to disciplinary actions

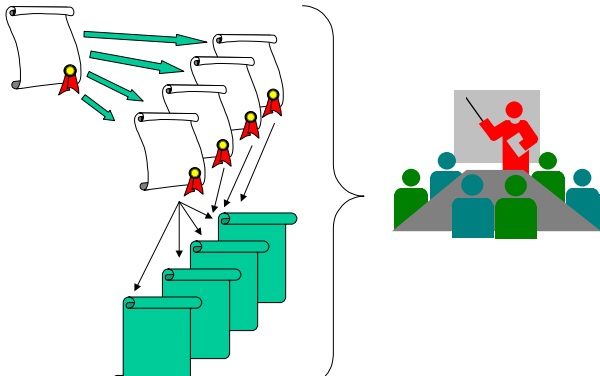
# Towards the Human Firewall

## The Moses Model



### Religious Culture

The commitment towards acceptable behaviour



### Security Culture

The commitment towards acceptable behaviour

# Towards the Human Firewall

## Security Culture - The Current Situation

Proper policies, procedures, rules, regulations

+

Awareness of above by employees

+

Total commitment of ALL employees to above

=

Human Firewall / Security Culture

?

?

?

# Towards the Human Firewall

Effective Information Security requires a Human Firewall

A Human Firewall requires a Security Culture

To grow a Security Culture

- Framework of policies and procedures ?
- Education ?
- Commitment ?

# Towards the Human Firewall

Effective Information Security requires a Human Firewall

A Human Firewall requires a Security Culture

To grow a Security Culture

- Framework of policies and procedures ?
  - Education ?
  - Commitment ?
- How ?**

# Towards the Human Firewall

**Thank you**

