



Te Pou Oranga Kai O Aotearoa

# Certification of Food: + New Zealand's Electronic Certification (E-cert) System

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Gulfood 06 - Dubai

# Presentation Structure



Te Pou Oranga Kai O Aotearoa

- NZFSA background
- Certification
- Electronic Certification
- NZ E-cert Model
- E-cert Impact Internationally and Internally
- E-cert, Now & Future





Te Pou Oranga Kai O Aotearoa

# NZ Food Safety Authority

## (NZFSA)



# NZFSA Origins



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Ministry of Agriculture and Forestry  
Te Manatu Ahuwhenua, Ngaherehere  
New Zealand



1 July 2002



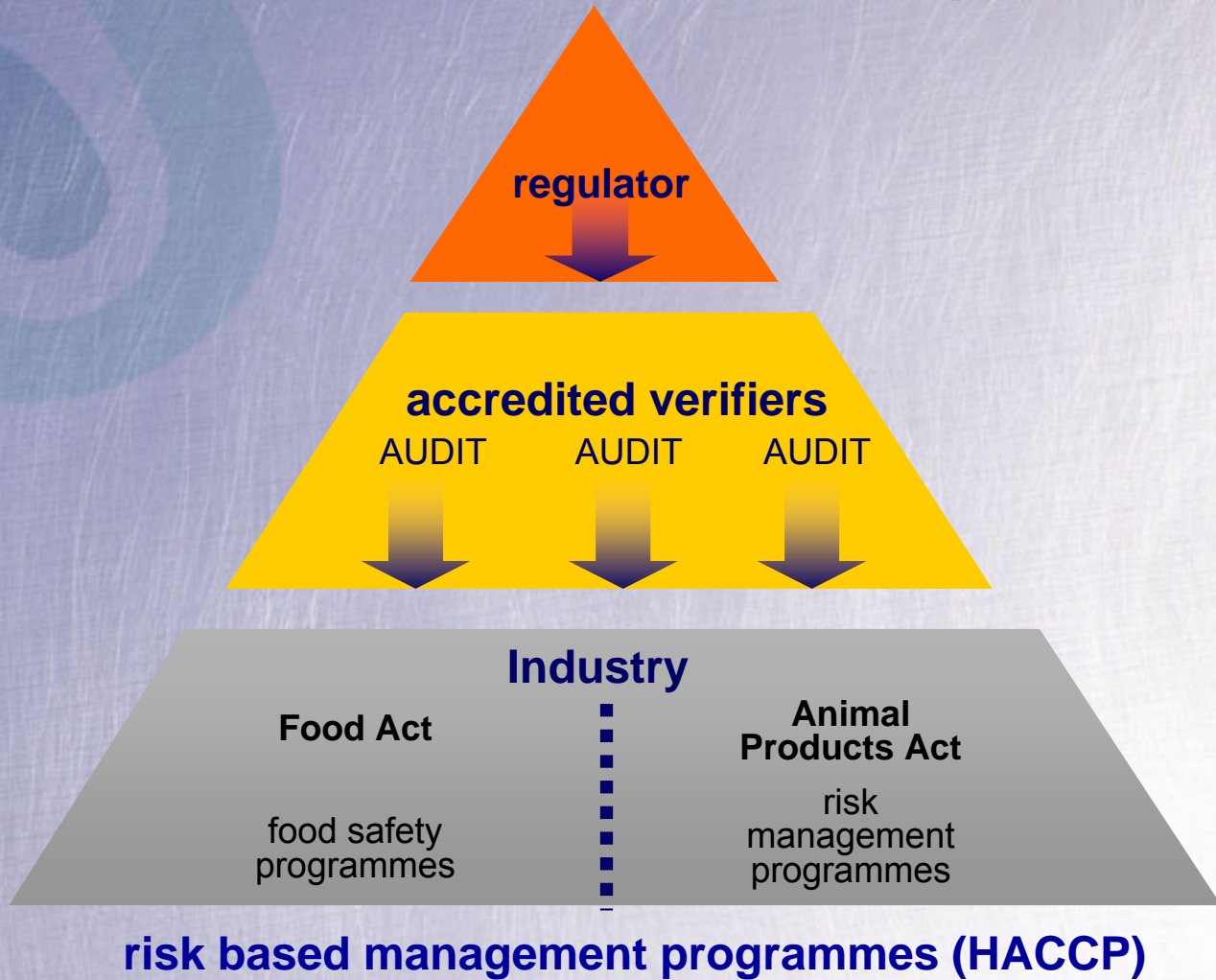


- **is the “competent authority”**
- Performs conformity assessment on behalf of overseas counterparts
- issues all food export certification
  - our assurance that agreed systems for delivering safe food have been followed
    - NZFSA is responsible

# NZFSA Regulatory Model



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# Certification



# Certification



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What does a certificate mean  
to you?





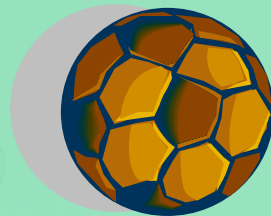


**I hereby certify that:**

**David Beckham**

has passed

Grade 1  
**Scoring Goals**



*John Thomas*

Grade 1 Coach 1985



## Codex

“the procedure by which official certification bodies or officially recognised certification bodies provide **written or equivalent assurance** that foods or food control systems conform to requirements”.



provides

the assurance that the food is fit for its intended purpose, and safe to consume.



When accepting certification for food, importing countries must have confidence that:

\ The certificate is authentic, i.e. it was issued by the competent authority of the exporting country.



When accepting certification for food, importing countries must have confidence that:

↳ the product described by the certificate **is** the product in the consignment



When accepting certification for food, importing countries must have confidence that:

the food was produced under the regulatory regime of the exporting country.



When accepting certification for food, importing countries must have confidence that:

- ⌘ the identification and traceability of product from production through to final shipment within the exporting country, is controlled.



When accepting certification for food, importing countries must have confidence that:

- the food meets all the regulatory requirements of the importing country.





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New Zealand's choice  
to ensure continued confidence and  
security in our export certification  
was

**Electronic Certification**  
**(E-cert)**





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# Electronic Certification

## (E-cert)



# What is E-cert?



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- Government to Government Assurance
  - electronic data exchange
- SPS industry - Sanitary and Phytosanitary
- Electronic - rather than paper
- May also include a within-country electronic process

# How did this begin in NZ?



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- Meat Industry and NZFSA – good idea! (1997)
- Meat Industry (exporters) funding
- Developed **internal** E-cert system for meat & fish (1998)
- Meat & fish (2000) and Dairy (2001) developed **export** certification system
- Plants Exports developed export certification system (2002)

# Why E-cert?



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- Market Access
- Compliant with international standards
- Speed
- Security
- Reliability
- Flexibility
- Simplicity
- Affordability



- NZ has large food export industry – can track and trace product
- Customise certificates to industry and importing country requirements
- Generate certificate paper documents electronically
- Change certificate format quickly

# Major Roles



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- Consignor/consignee (Industry)
- Inspector (Government verification/Export certificate approval)
- Border Inspector (Importing Country Competent Authority)



- **Animal Products (2000)**
  - Approx 100 countries
  - most products : all products and countries by the end of 2006
- **Dairy (2001)**
  - 135 countries approx.
- **Phytosanitary (2002)**
  - all countries





- System Owner (Government)
- Steering Group
  - Application owners (Government)
  - Stakeholders (Industry)
- Programme Group (Active participants including contracted computer consultancy)
- Cost recovered from industry
- Contract between users and E-cert, in consultation with industry organisations

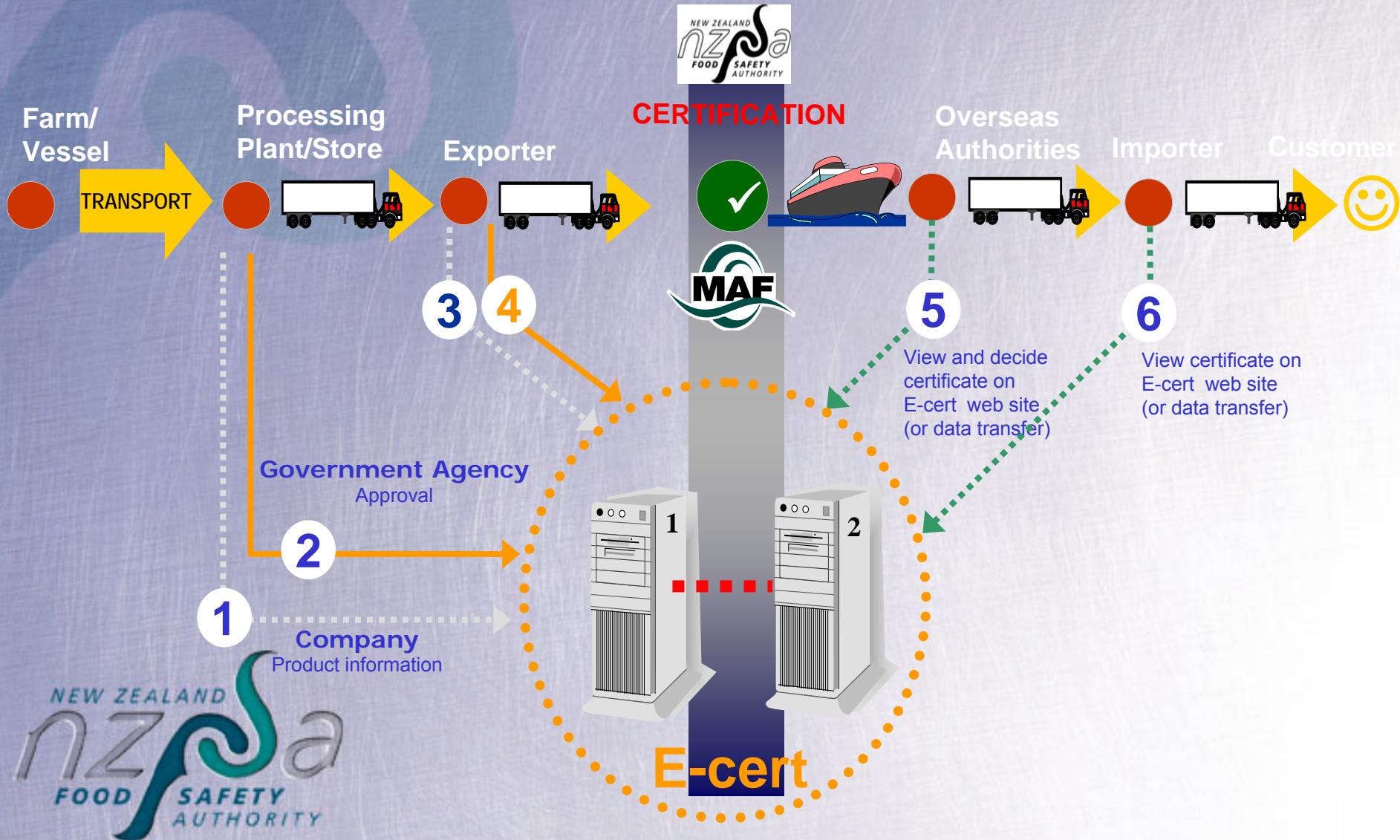


- Dairy – (paper system)
- Fish – (approved processor approval of E-certs (EDs) for internal product movements)
- Meat - (NZFSA approval of E-certs (EDs) for internal product movements)

# Business Model



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# Certificate Online



## BORDER INSPECTOR view

Certificate Reference ➤

Title & Declarations ➤

Inspector ➤

Transport Details ➤

Product Details ➤

Approval ➤



The screenshot displays the 'Electronic Health Certification' web application in Microsoft Internet Explorer. The page title is 'New Zealand Food Safety Authority - Ministry of Agriculture and Forestry - Electronic Health Certification'. The main content area shows details for an 'Export Certificate NZL2004/ELN6000/98765'. The status is 'Approved'. The declarations include 'AP1403.1 Certificate to Accompany Wool Exported from New Zealand to Mexico / Certificado que acompaña los lana exportadas de Nueva Zelanda a México'. The 'Vet Declarations' section contains several checked items: 'The wool and/or wool products were derived from animals resident in New Zealand / La lana y/o productos derivados de la misma procedieron de animales residentes en Nueva Zelanda', 'New Zealand is a country free of scrapie / Nueva Zelanda es un país libre de la scrapie', 'The product originates from the country shown on this document and has been approved for industrial use / El producto es originario del país indicado en este documento como de origen y ha sido aprobado para uso industrial', and 'Anthrax, sheep and goat pox, sheepscab (Psoroptes ovis) do not occur in New Zealand / las enfermedades ántrax, viruela ovina y caprina y sarna psoróptica (Psoroptes ovis) no se dan en Nueva Zelanda'. The 'Official Information' section lists 'Certified by: RVS, 23-Jan-2004 10:08' and 'Last updated by: John Lee, 23-Jan-2004 10:08'. Below this, there is a section for 'Product Item 1' with details: '250 Bales - Wool Bales', 'Net: 25000 kg', 'Container & (Seal) Numbers: / Números de contenedores & (sellos): 123456 (Seal number)', and 'Processing Premises: / Establecimiento(s) de procesamiento: ELN6000'. At the bottom, there is an 'Acceptance Panel' with a 'Current status: Approved' and a 'Change Status to:' dropdown menu with options: 'Accepted', 'Rejected', 'Request Replacement', and 'Detained'. A 'Submit' button is also present. A footer note says 'For enquires please contact [ec\\_admin@majordomo.maf.govt.nz](mailto:ec_admin@majordomo.maf.govt.nz)'.

# Printed Certificate



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Certificate Reference  
Address & Transport  
Product Details  
Declarations



NEW ZEALAND FOOD SAFETY AUTHORITY  
Ministry of Agriculture and Forestry

Certificate number: NZL2004/ELN6000/98765

Certificate to Accompany Wool Exported from New Zealand to Mexico / Certificado que acompaña los lana exportadas de Nueva Zelândia a México

<b>Name and address of consignor / Nombre y dirección del exportador:</b> ELN6000 TEST - Joe Bloggs Meats Ltd Seafield House 123-125 Lambton Quay WELLINGTON NEW ZEALAND		<b>Exporting country / País exportador:</b> NEW ZEALAND <b>Competent authority / Autoridad competente:</b> FOOD SAFETY AUTHORITY	
<b>Name and address of consignee / Nombre y dirección del consignatario:</b> Name of Importer Address of Importer		<b>Place and Country of Destination: / País y lugar de destino:</b> MXZLO	<b>Means of transport: / Medio de transporte:</b> Sea, vessel, voyage no.
		<b>Place of Loading: / Puerto de carga:</b> Auckland	<b>Port of Inspection: / Puerto de inspección:</b> Manzanillo [COL]

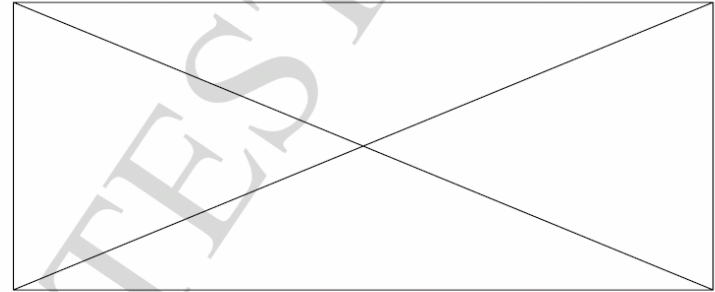
Item / Artículo	Number and kind of packages / Número y tipo de paquetes	Description of product / Descripción del producto	Net weight / Peso neto
1	250 Bales Wool Bales		25000 kg
250 Packages in Total /			Total Weight / 25000 kg

<b>Container &amp; (Seal) Numbers: / Números de contenedores &amp; (sellos):</b> (1) 123456 (Seal number)	
<b>Processing Premises: / Establecimiento(s) de procesamiento:</b> (1) ELN6000	

Health attestation / Certificado sanitario:

I hereby certify that / Por este medio certifico que

- (a) The wool and/or wool products were derived from animals resident in New Zealand / La lana y/ o productos derivados de la misma procedieron de animales residentes en Nueva Zelândia
- (b) New Zealand is a country free of scrapie. / Nueva Zelândia es un país libre de la scrapie.
- (c) The product originates from the country shown on this document and has been approved for industrial use / El producto es originario del país indicado en este documento como de origen y ha sido aprobado para uso industrial
- (d) Anthrax, sheep and goat pox, sheepscab (Psoroptes ovis) do not occur in New Zealand / las enfermedades ántrax, viruela ovina y caprina y sarna psoroptica (Psoroptes ovis) no se dan en Nueva Zelândia



Done at / Hecho en:  
WELLINGTON, New Zealand

Sex:

Signature of official veterinarian, New Zealand Government /  
Firma del veterinario oficial, Gobierno de Nueva Zelândia

On / at:  
23-Jan-2004

BVSc  
Name, title and qualifications / Nombre, cargo y cualificación



# XML View



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- Log on as border inspector
- Search for certs
- Review list
- Download file
- Save ZIP file
- Unzip file
- View XML file
- Process XML file

```
<?xml version="1.0" encoding="utf-8" ?>
<!DOCTYPE certificate (View Source for full doctype...)>
<certificates>
  <certificate no="NZL2004/ELN6000/98765" status="Approved">
    <issue_date year="2004" month="1" day="23" hour="10" minute="8" second="22">2004-01-23 10:08:22</issue_date>
    <exporting_country country_code="NZ">
      <name>New Zealand</name>
      <competent_authority>New Zealand Food Safety Authority</competent_authority>
    </exporting_country>
    <importing_country country_code="MX">
      <name>Mexico</name>
    </importing_country>
    <title>
      <text language="en">Certificate to Accompany Wool Exported from New Zealand to Mexico</text>
      <text language="es">Certificado que acompaña los lana exportadas de Nueva Zelandia a México</text>
    </title>
    <subtitle>
      <text language="en" />
    </subtitle>
    <exporter id="105702">
      <name>TEST - Joe Bloggs Meats Ltd</name>
      <address>Seafield House, 123-125 Lambton Quay, WELLINGTON</address>
    </exporter>
    <consignee>
      <name />
      <address>Name of Importer Address of Importer</address>
    </consignee>
    <departure_date year="2003" month="12" day="30">2003-12-30</departure_date>
    <loading_port country_code="NZ">Auckland</loading_port>
    <final_destination>MXZLO</final_destination>
    <inspection_port country_code="MX" city_code="ZLO">Manzanillo [COL]</inspection_port>
    <discharge_port country_code="US" city_code="LAX">Los Angeles [CA]</discharge_port>
    <transport means="Sea">
      <carrier>vessel</carrier>
      <conveyance_ref>voyage no.</conveyance_ref>
    </transport means>
  </certificate>
</certificates>
```





- NZFSA Registered Exporters  
Identifier - e.g. AFFCO 1, ELN610
- NZFSA Registered Risk Management Programmes (RMPs)  
Identifier - e.g. ME102, SPM50



- Only registered exporters can raise E-certs
- Only registered RMP ID can be used
- NZFSA check cert before approving
- Details of any internal product moves transferred from EDs to export E-certs.

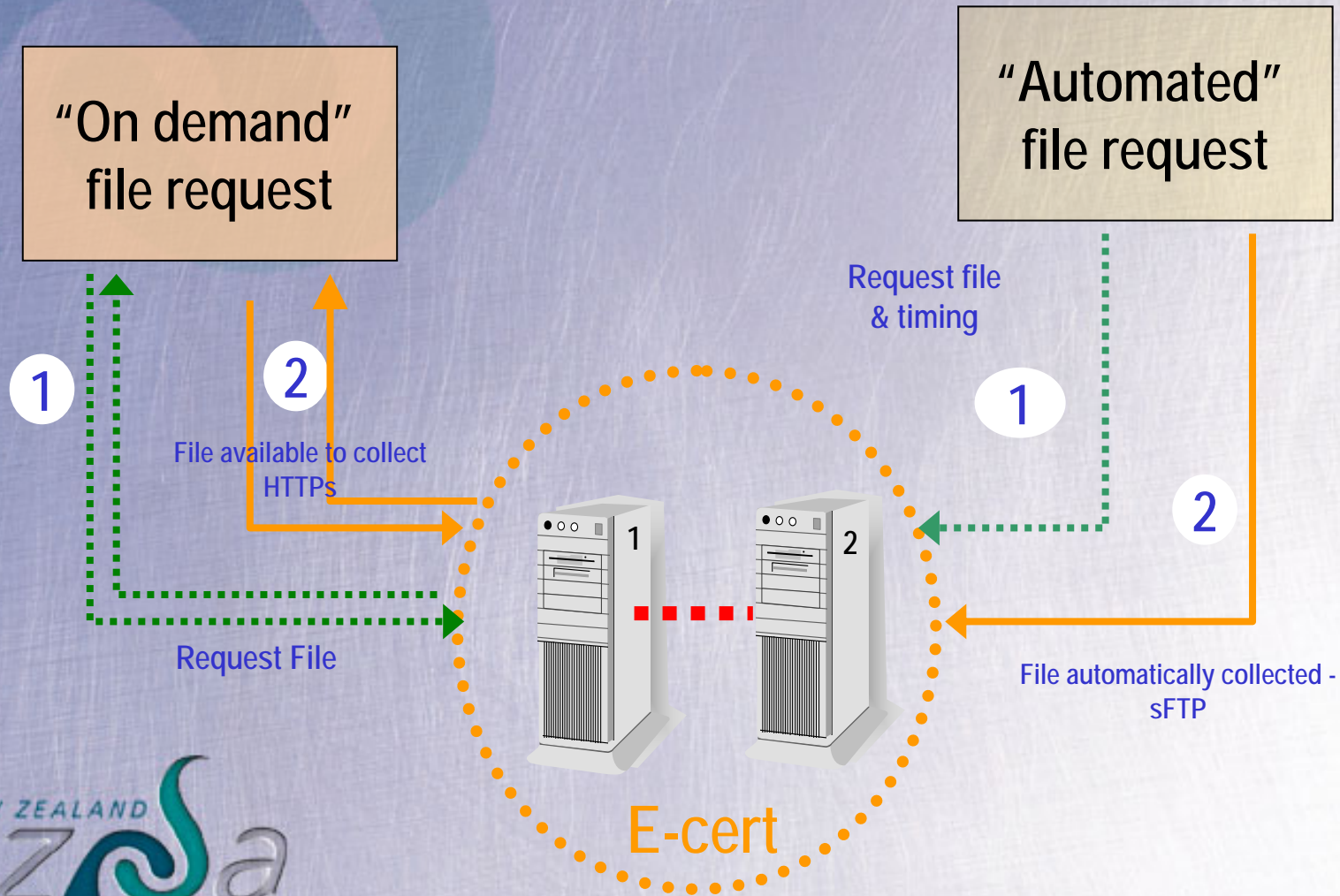




- Submission of data by exporter:
  - interactive via web browser
  - batch file via web browser
  - computer to computer XML file by sftp transfer
- Receipt of data by importing govt.:
  - interactive via web browser
  - direct download of XML
  - computer to computer XML file by sftp or SOAP transfer.



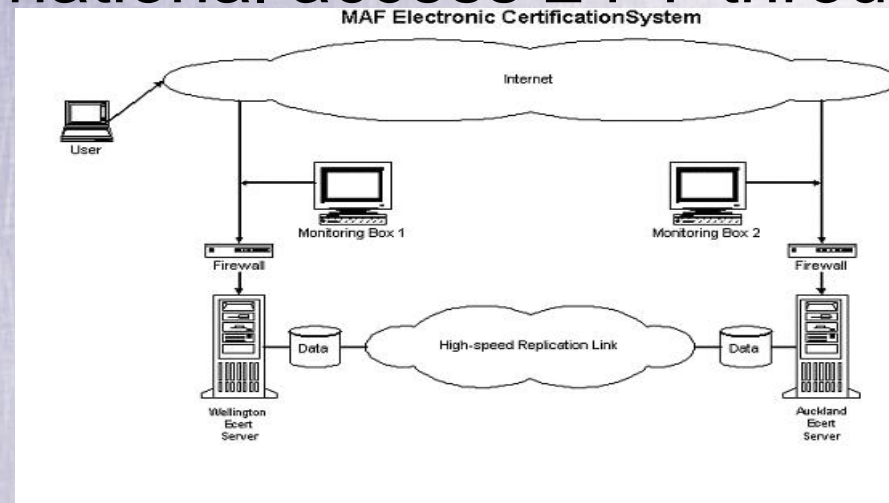
## Data Transfer Model





## Architecture

- High availability through duplicate servers
- Data protection through replication and firewall
- Communication security through encryption
- National and international access 24\*7 through web application



# Minimum Desktop Spec.



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- Internet access,  $\geq 56\text{kb/s}$
- $\geq 128\text{ MB RAM}$
- Browser  
(IE 5.5, Netscape 6.x etc)
- Adobe Acrobat Reader 4.0
- E-mail client  
(MS Outlook, NS Messenger etc)
- SFTP client for regular XML extract  
(FileZilla etc)





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# E-cert in the International Arena





- APEC Pathfinder programme
- Multilateral and bilateral agreements for SPS certification
  - CODEX
  - ICPM
  - OIE
- UN/CEFACT
- World Customs Organisation (WCO)



- Improved **Relationships** between economies
  - Government to Government
  - Increased Trust and Confidence
  - Greater Transparency
  - Reduced Fraud, Protect Brand, Identify discrepancies



## Change international trade behaviour

- government to government
- Pre-clearance
- Customs-SPS alignment
- Government Risk
  - Terrorism
  - Economic wellbeing

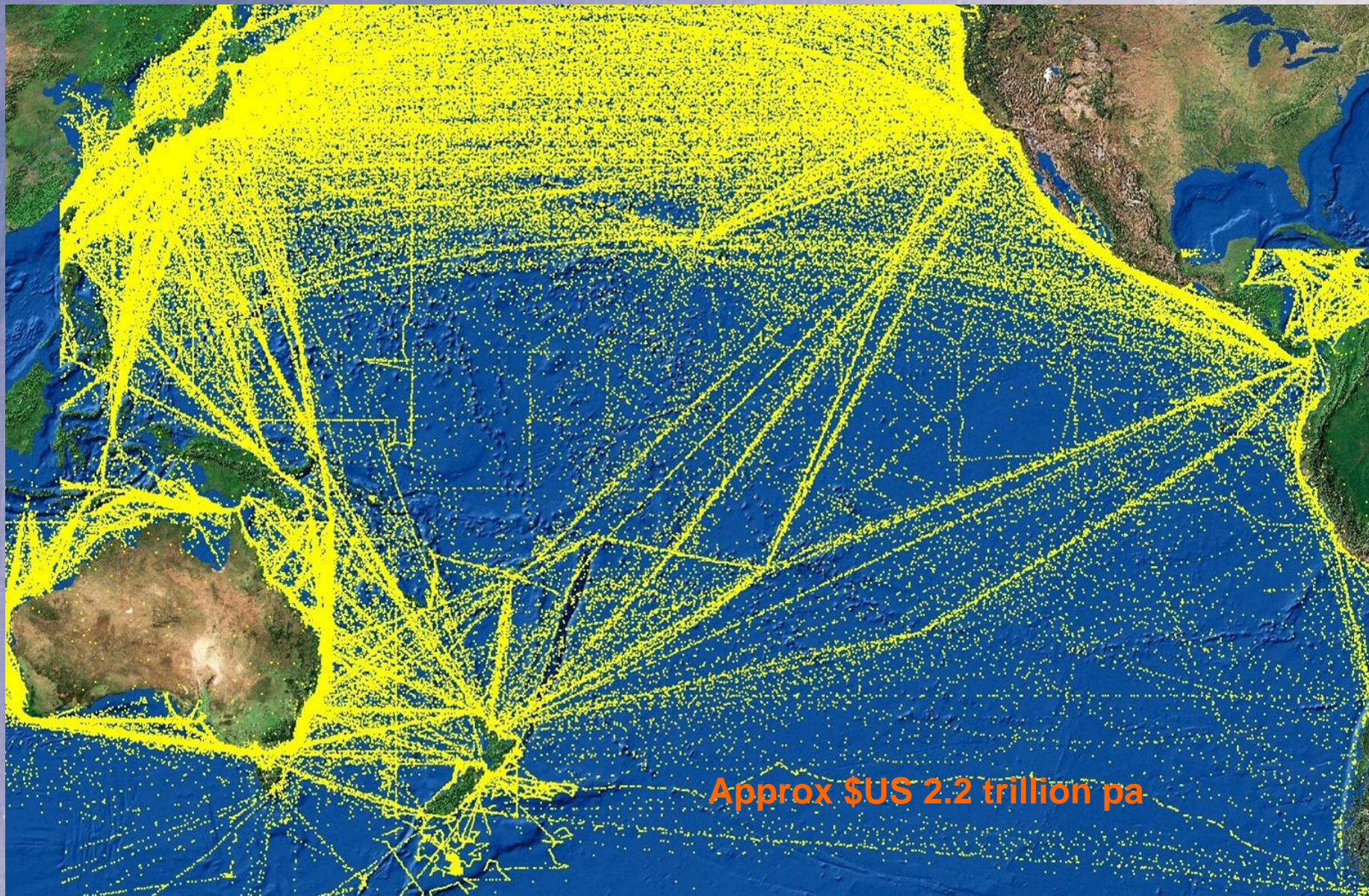


# Pacific Ocean Shipping Movements

(6 Weeks)



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Approx \$US 2.2 trillion pa

# Cost Benefits



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- Electronic Certificates of Origin and Electronic SPS certificates indicate savings about \$US100 per transaction
- APEC estimate 3% saving in world trade costs by going paperless - \$US60 billion pa
- US government has calculated that its new customs processing service will save \$US4.4 billion over the life of the project

# Cost Benefits



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- Thailand Customs - cost savings US\$ 0.7 billion annually
- 2001 government study showed that broad scale automation of collaborative business processes offers significant value to the Australian economy (2% of GDP)
- Korea – saving \$ 2.7 billion per a year,  
e-procurement



- Internationally accepted **standards**
- **Individual** economy:
  - Sovereignty
  - Preparedness
  - Champion
  - Technology



- Border activity management  
**alignment**
- Differences in regulatory **regimes**
- **Confidence and Trust**
  - Technology
  - Security
  - People



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# Internal (within country) Benefits and Challenges



## Imports without E-cert – issues

- **Process**
  - Local decisions
  - Paper based
  - Legacy/costly systems
  - Expensive
- **Process Differences**
  - Imported Food
  - Biosecurity
  - Customs



## Early **notification** of shipments

- Personnel/equipment management
- Pre-clearance
- Manage import risks
- **Product inspections** can be organised in advance
- Improved product **supply chain**
  - Reduction in costs
  - Increased speed
  - Greater transparency



# Internal Benefits



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- Electronic receipt of data
- Export country data = Import country data
- Central repository for data
- Automated risk profiling
- Electronic **link with import management system** (automatic download)



- Improvement in **decision making**
- More **robust/alignment** of internal systems-Customs/SPS data standards
  - Greater efficiency, reduced workload
  - Reduced errors
  - Proactive rather than reactive
- Govt – Industry **partnerships**



- **Marketing Edge**
  - Trace back to slaughter within minutes
  - Transparent robust system
  - Reduce compliance cost and/or added value
  - Resolve international issues quickly
- **Business Intelligence**
  - Detail about markets
  - Detail about companies/risks/opportunities



- **Impetus** for change
- **Decision** maker or **Champion**
- **Convincing** others
- Organisation **alignment**
  - “agriculture” - Seafood, Meat, Dairy, plants/horticulture
  - “biosecurity” - pests, diseases
  - “supply chain” - finance, security, data, industries
  - “external focus” – foreign affairs, market access, Customs
  - Import and export process

# Internal Challenges



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- Internal information/IT **systems**
- Internal **uses** for certificate data
- **Personnel** impact
- Obtaining **Funding**
- Sourcing **E-cert expertise**



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# E-cert Now to The Future





- If poor internet access at ports - extra security in paper certificates generated by E-cert.
- If internet access available centrally - look at certificates online and send to ports by e.g. fax. before shipments arrive.



- If good internet access at ports - can see certs for shipments coming to their port prior to arrival.
- Can accept or reject certificates. This will immediately be notified to NZFSA.



# E-cert Future



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- Can set up your own E-cert system for exported product, and for product movement within your country
- Can enjoy the benefits of E-cert and become part of the international E-cert community, the way of the future.



## How do you begin to implement E-cert?

- Decide objectives
- Find a champion – a system owner
- Organise a steering group
- Decide funding
- Find expertise - share this
- NZ can provide advice & support

# Presentation Structure



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- E-cert Impact Internationally and Internally
- E-cert Now & Future





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# Thank you

Peter Gollan

