Public User

NW User 50

Internet

PSTN

30, 64 Kbps Lines XX

NW User 330

Video Conference User 1

3, 128 kbbs XX

ISDN

PSTN

6, 64 kbbs XX

<< Physical Location >> City YY

<< Physical Location >> XXnet : City XX

Internet Connection

LAN 100 Mbps

XX Internal WAN

<< Physical Location >> City BB

Management WAN

Standby 10 Mbps Point To Point XX

256 kbps Point To Point XX

<< Physical Location >> Old City: Building 1

100 Mbps LES XX

<< Physical Location >> Old City: Building 2

<< Physical Location >> City ZZ

LAN 100 Mbps

NW User 60

1 Mbps Point To Point XX

2 Mbps Voice XX

15 Mbps Etherchannel XX

15 Mbps Etherchannel XX

PSTN

6, 64 kbbs XX

Internet

<< Physical Location >> City AA

Internet Connection

10 Mbps Point To Point XX

<< Physical Location >> New City: Building 2

100 Mbps LES XX

<< Physical Location >> New City: Building 1

LAN 100 Mbps

NW User 100

NW User 50

Public User

4, 2mbps XX(lines owned by searchers)

ISDN 30, 64kbps XX

NW Dial in User 50

<< Organisation >> : Searcher Organisation

64 Kbps XX

30, 64 Kbps Lines XX

30, 64 Kbps Lines XX

ISDN

5, 128 kbps XX

128 Kbps Point To Point

LAN 100 Mbps

30, 64 Kbps Lines

128 kbbs XX

3, 128 kbps XX

Zetafax, marketing, mail fax, Test

Searcher User 100

GSI Network

Network Management WAN

<< Organisation >> McAlpine : Organisation

NW User 1100

Government Telephone Network

PSTN

<< Organisation >> BACS : Organisation

Video conference User 1

Topology Context Diagram: Revised By: xxxxxxxx   Revised Date: xx/xx/xxxx

<< User Device / External System Domain >>

<< BT Management Firewall >>

<< External LAN User Firewall >>

Internet

Private Network

PSTN / ISDN

<< External Access Firewall >>

<< System, Network Management & Backup Domain >>

<< Internal Session & Presentation Domain >>

<< External Session & Presentation Domain >>

<< Central Data Domain >>

<< External DMZ Firewall >>

<< Database Firewall >>

<< Database Server Domain>>

<< Technical Process & Function Domain >>

<<Business Process & Function Domain >>

New World Infrastructure Architecture:
New World Network Domain Diagram - Level 1   Revised By: xxxxxxxx   Revised Date: xx/xx/xxxx

<< User Device / External System Domain >>

<< External User Support PC / Workstation / Thin Client >>

<< RoS PC (Mobile or Laptop) / RoS Workstation >>

<< RoS User Thin Client >>

<< External User Thin Client >>

<< External System >>

Internet

Private Network

PSTN / ISDN

<< BT Management Firewall >>

<< External LAN User Firewall >>

<< External Access Firewall >>

<< System, Network Management & Backup Domain >>

<< Operational Management Server >>

<< Backup Server >>

<< Tape Array >>

<< Internal Session & Presentation Domain >>

<< Load Balancer >>

<< Presentation Server >>

<< HTTP Server >>

<<Potential Combined Server Presentation / Process / Activity / Task / Function / Database >>

<< External Session & Presentation Domain >>

<< Load Balancer >>

<< Presentation Server >>

<< HTTP Server >>

<<Potential Combined Server Presentation / Process / Activity / Task / Function / Database >>

<< Gateway Server >>

<< Central Data Domain >>

<< NAS >>

<< SAN >>

<< Optical Server >>

<< External DMZ Firewall >>

<< Database Firewall >>

<< Technical Process & Function Domain >>

<< Technical Process / Activity Application Server >>

<<Potential Combined Server Presentation / Process / Activity / Task / Function / Database >>

<< Technical Task / Function Application Server >>

<< Central Scanner >>

<<Business Process & Function Domain >>

<< Business Process / Activity Application Server >>

<<Potential Combined Server Presentation / Process / Activity / Task / Function / Database >>

<< Business Task / Function Application Server >>

<< Database Server Domain>>

<< Transactional Database Server >>

<< Analytic Database Server >>

Infrastructure Architecture:

Network Domain Diagram - Level 2 - Domains & Device Types   Revised Date: 20/04/2006
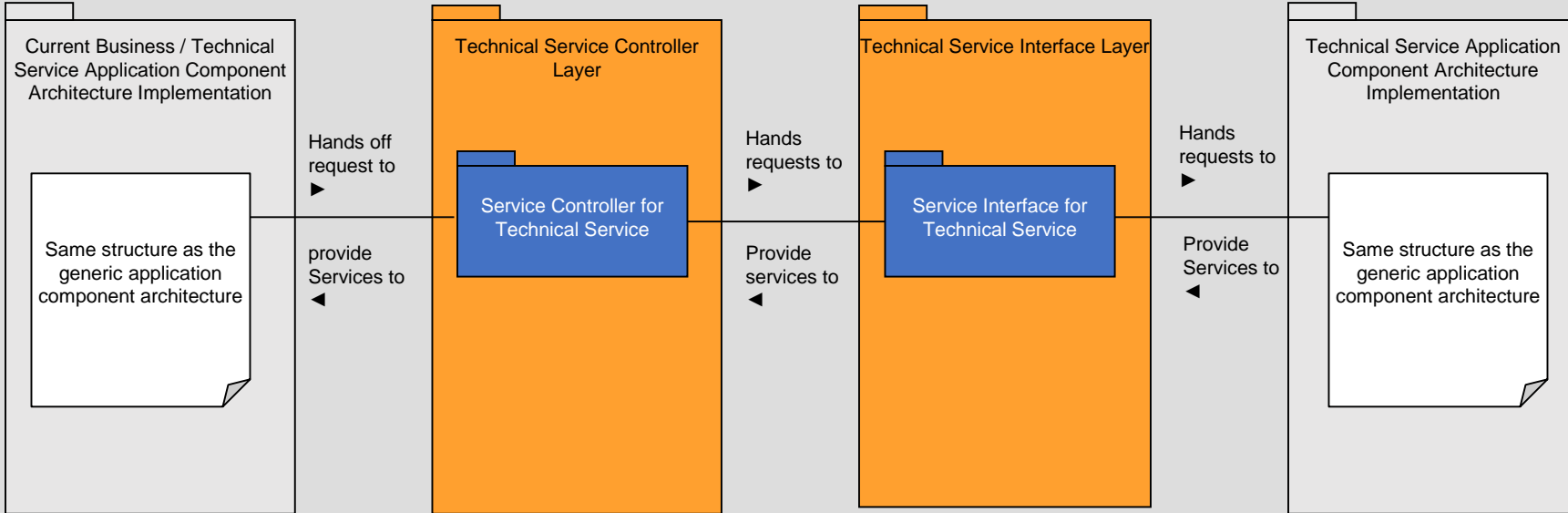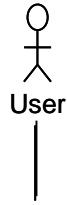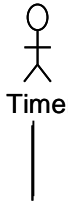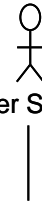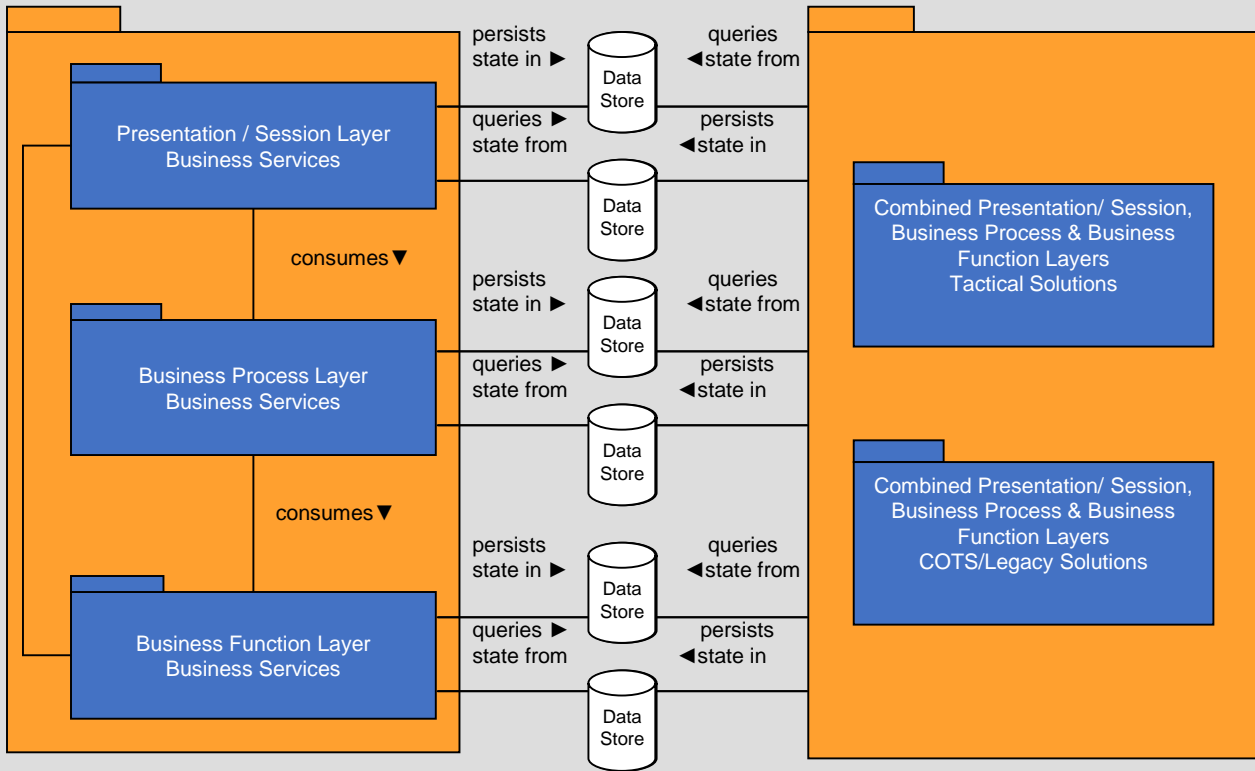
Process Layer

<<package>>
Control Draft Application
– populate application
for electronic submission

<<package>>
Control Register Queries –
search
an Agency Register and
view the results

<<package>>
Control Scanning - convert
paper
document to image and
metadata

<<package>>
Control Application Creation
–
validate and create
Agency application

<<package>>
Control Application
Processing – settle
Land Register application

<<package>>
Control eForm Completion –
populate
application for paper/
e-mail submission

<<package>>
Control Document Despatch
– despatch
certificates and documents
to customers

<<package>>
Control Management
Reporting – report on
management information

<<package>>
Control Administration
Processes –
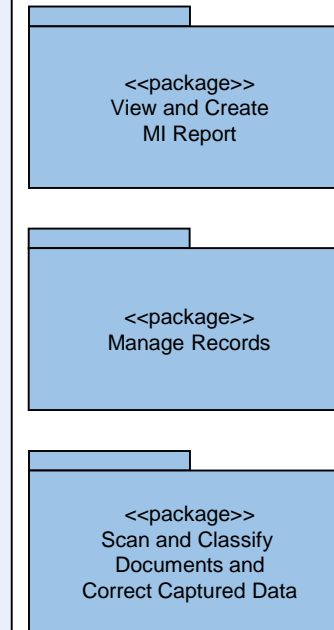various processes to
administer the BSA

<<package>>
Control Batch Processes –
various batch processes
to support the BSA
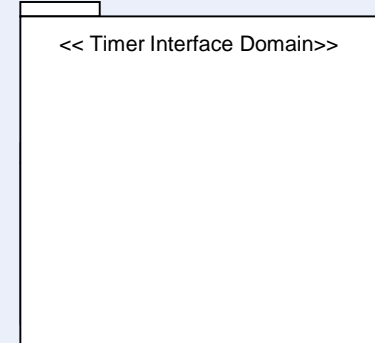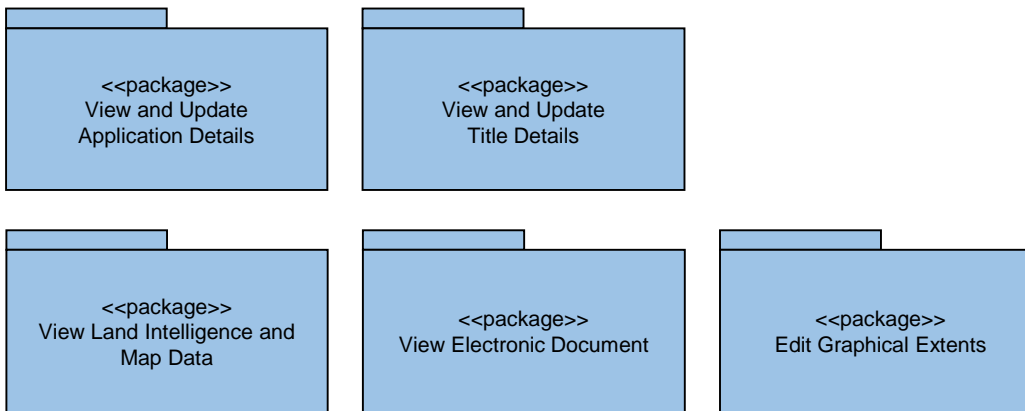
Presentation and Session Layer

<<Externally Facing User Application Domain>>

<<package>>
Create Application
for Electronic Submission
and Automatic Settling

<<package>>
Submit Query against
Registers and View
Results

<<package>>
Enquire about
House Prices

<<package>>
Populate Application
for Paper Submission

<<package>>
Create Application
for Electronic Submission
and Manual Settling

<<package>>
View Static Agency
Information

<<Internal Facing User Application Domain>>

<<package>>
View and Update
Application Details

<<package>>
View and Update
Title Details

<<package>>
View Land Intelligence and
Map Data

<<package>>
View Electronic Document

<<package>>
Edit Graphical Extents

<<Internal COTS Presentation & Session Domain>>

<<package>>
View and Create
MI Report

<<package>>
Manage Records

<<package>>
Scan and Classify
Documents and
Correct Captured Data

<< External System Interface Domain>>

<< Timer Interface Domain>>

Function Layer

<<package>> Place Management

<<package>>
Place – gazetteer of own-able locations (RAG)

<<package>> Case Management

<<package>>
Casework – manage a case from start to finish

<<package>>
Stamp Duty Land Tax – calculate and inform

<<package>>
Lender – validate lender details and inform lenders of completed applications

<<package>>
Application Form – capture and review data from app. forms

<<package>>
Fees and Payments - calculate fees and interface with finance

<<package>>
Deed – capture and maintain deeds and clauses

<<package>>
Document – manage the business context for documents and certificates

<<package>> Party Management

<<package>>
Party Identity – "gazetteer" of people/organisations

<<package>>
Legal Entity – maintain groups of one or more parties in a register

<<package>>
Agent – maintain customer data

<<package>> Land Register Management

<<package>>
Title – retrieve details, settle application and create certificates

<<package>>
Title Extent – maintain and retrieve spatial element of title

<<package>> Register Management

<<package>>
Presentment Book – record presentment of deeds and retrieve

<<package>>
Minute Book – summarise deeds and retrieve

<<package>>
Search Sheet Index – search and retrieve SSI images

<<package>> Registers Management

<<package>>
Inhibition – record and retrieve inhibitions

<<package>>
Judgement – record and retrieve judgements

<<package>>
Book of record and retrieve legal documents

Core Type Model
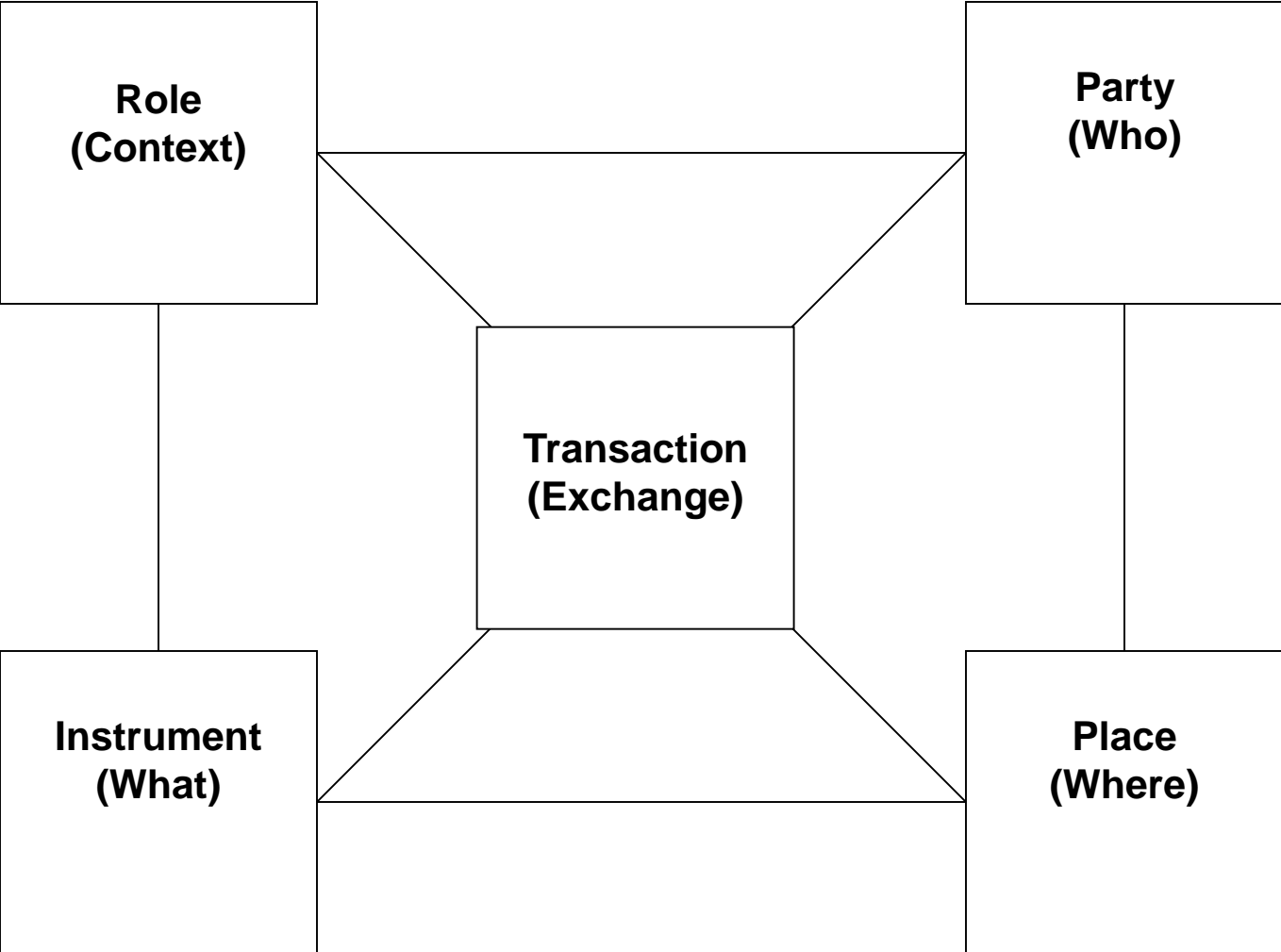
Information Asset Model

<<Information Asset>> Channel

<<Information Asset>> Product

<<Information Asset>> Document

<<Information Asset>> Person

<<Information Asset>> Payment

-for provision of
1

-by way of
1..*

-requires
0..*

<<Information Asset>> Document

0..*

0..1

<<Information Asset>> Application

1

0..*

-incurring
0..*

to support

<<Information Asset>> Deed

-references
0..*

<<Information Asset>> Other Instrument

<<Information Asset>> Party

<<Information Asset>> Organisation

0..* 0..1

0..1

-initiates
1

-references
0..*

defining output type

-creates
0..*

associated deeds

1..*

1

1..*

-creates, amends or references
0..*

-implicates
1..*

in the capacity of

-creates or amends
0..1

0..*

<<Information Asset>> Title

<<Information Asset>> Note

<<Information Asset>> Register Entry

<<Information Asset>> Context Vocabulary (assigning party designation)

1

1

0..*

1

1

1..*

relating to (extent)

<<Information Asset>> Background Mapping

1..*

1

<<Information Asset>> Context Vocabulary

1

1

<<Information Asset>> Location Extent

-relating to
0..*

<<Information Asset>> Location Identifier

1..*

1

<<Information Asset>> Location

<<Information Asset>> Location Point

0..1

0..*

Software Architecture Patterns

Presentation and Session Layer

Provides framework for the presentation layer of the application

«product» **Web Application Framework**

«jsp» **View**

«pojo» **Action Handler**

Used to locate a service supporting a process or task

«pojo» **Business Delegate**

«singleton» **Service Locator**

Used to locate a service in a different tier

Business Process Layer

Used to access the workflow service in particular the process controller

«sesssion EJB» **Worklist Handler**

«sesssion EJB» **Task Controller**

«pojo» **Transfer Object**

Created to support coarser grained communication between layers

«pojo» **Helper**

Optionally used for common inter-package collaborations refactored from Task Controllers

Business Function Layer

«pojo» **Business Object Home**

«pojo» **Business Function Mediator**

Optionally used for intra package collaboration for logic that cannot be allocated to a Business Object

«pojo» **Business Object**

Using hibernate as framework for Object to Relational Mapping (ORM)

«product» **ORM Framework**

«pojo» **Gateway**

Gateway used to communicate with external systems. May require state.

<< exploded war >>
<System>Static.war

<< ear >>
<System>Presentation.ear

<< jar >>
<System>Presentation.jar

«pojo» **Action Handler**

«jsp» **View**

«pojo» **Business Delegate**

<< jar >>
<Technical Service>.jar

«product» **Web Application Framework**

«singleton» **Service Locator**

<< ear >>
Workflow.ear

«sesssion EJB» **Process Controller**

<< ear >>
<System>Application.ear

<< jar >>
<System>.jar

«sesssion EJB» **Task Controller**

«pojo» **Helper**

«pojo» **Transfer Object**

<< jar >>
Core.jar

<< jar >>
<Business Function>.jar

«pojo» **Business Object Home**

«pojo» **Business Function Mediator**

«pojo» **Business Object**

«pojo» **Data Access Object**

<< jar >>
<Technical Service>.jar