

1.

2. (,)

ITU-T X. 521(1992) , TTA.CT-X521

3.

- 3.1 TTA : TTA.CT-X521
- 3.2 ITU-T : ITU-T X. 521(1992)
- 3.3 ITU-R :
- 3.4 ISO : ISO/IEC 9594-9

4.

1	1994. 2. 18	
2	1996. 1. 6	

Preface

1. Summary

This standard defines a number of selected attributed sets and object classes which may be found useful accross a range of applications of the Directory. The definition of an attribute set involves identifying the attributes that it cotains, and facilitates the definition of object classes.

2. Relation with other standards

This standard has its origin in the ITU-T X.521(1992) standard as a base standard and is developed as an extension to the TTA.CT-X.521 standard.

3. References

- 3.1 TTA Standard : TTA.CT-X.521
- 3.2 ITU-T Recommendations : ITU-T X.521(1992)
- 3.3 ITU-R Recommendations : None
- 3.4 ISO Standards : ISO/IEC 9594-6

4. History

Version	Issue Data	Contents
1	1994. 2. 18	Established
2	1996. 1. 6	Revision

CONTENTS

1		
SECTION 1 - Introduction		
1.	-----	1
Scope		
2.	-----	1
Reference		
3.	-----	1
Definition		
4.	-----	2
Notation		
2		
SECTION 2 - Selected Object Classes		
5.	-----	2
Definition of Useful Attribute Sets		
6.	-----	6
Definition of Selected Object Class		
3		
SECTION 3 - Selected Object Binding		
7.	-----	7
Definition of Selected Object Binding		
A. ASN.1	-----	11
Annex A - Selected Object Classes in ASN.1		
B. DIT	-----	17
Annex B - Suggested Name Forms and DIT Structures		

The Directory - Selected Object Classes

1

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1 - X.501

2 - ,

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DSA) 가 (,

2

X.500 - - ,

X.501 - -

X.509 - -

X.520 - -

X.200 - OSI -

X.208 - OSI - 1 (ASN.1)

3

3.1 OSI

X.200 .

- a)
- b)

3.2

X.501 .

- a)
- b)
- c) (DIT)
- d) (DSA)
- e)
- f)
- g)
- h)
- i)
- j)
- k)

4

(1988) "1988"
, '1992" .

2

5

5.1 (Telecommunication)

```
telecommunicationAttributeSet ATTRIBUTE ::= {
    facsimileTelephoneNumber,
    internationalISDNNumber,
    telephoneNumber,
    teletexTerminalIdentifier,
    telexNumber,
    preferredDeliveryMethod,
    destinationIdentifier,
    registeredAddress,
    x121Address }
```

5.2 (Postal)

```
postalAttributeSet ATTRIBUTE ::= {  
    physicalDeliveryOfficeName,  
    postalAddress,  
    postalCode,  
    postOfficeBox,  
    streetAddress }
```

5.3 (Locale)

```
localeAttributeSet ATTRIBUTE ::= {  
    localityName,  
    sateOrProvinceName,  
    sreetAddress }
```

5.4 (Organizational)

가

```
ortganiozationalAttributeSet ATTRIBUTE ::= {  
    description,  
    localeAttributeSet,  
    postalAttributeSet,  
    telecommunicationAttributeSet,  
    businessCategory,  
    seeAlso,  
    searhGuide,  
    userPassword }
```

6

6.1 (Country)

DIT

```
country OBJECT-CLASS ::= {  
    MUST CONTAIL countryName  
    MAY CONTAIN { description |  
                searchGuide }  
    ID { objectClass 2 } }
```

6.2 (locality)

DIT

```

locality OBJECT-CLASS ::= {
    MAY CONTAIN    { description |
                    searchGuide |
                    localeAttributeSet |
                    seeAlso }
    ID              { objectClass 3 } }

```

6.3 (Organization)

DIT

```

organization OBJECT-CLASS ::= {
    MUST CONTAIN    organizationName
    MAY CONTAIN     organizationalAttributeSet
    ID              { objectClass 4 } }

```

6.4 (Organizational Unit)

```

organizationalUnit OBJECT-CLASS ::= {
    MUST CONTAIN    organizationalUnitName
    MAY CONTAIN     organizationalAttributeSet
    ID              { objectClass 5 } }

```

6.5 (Person)

```

person OBJECT-CLASS ::= {
    MUST CONTAIN    { commonName, surname }
    MAY CONTAIN     { description |
                    telephoneNumber |
                    userPassword |
                    seeAlso }
    ID              { objectClass 6 } }

```

6.6 (Organizational Person)

```

organizationalPerson OBJECT-CLASS ::= {
    SUBCLASS OF     person
    MAY CONTAIN     { localeAttributeSet |
                    postalAttributeSet |
                    telecommunicationAttributeSet |
                    organizationalUnitName |

```

title }
 ID { objectClass 7 } }

6.7 (Organizational Role)

organizationalRole OBJECT-CLASS ::= {
 MUST CONTAIN commonName
 MAY CONTAIN { description |
 localeAttributeSet |
 organizationalUnitName |
 postalAttributeSet |
 preferredDeliveryMethod |
 roleOccupant |
 seeAlso |
 telecommunicationAttributeSet }
 ID { objectClass 8 } }

6.8 (Group of Names)

groupOfNames OBJECT-CLASS ::= {
 MUST CONTAIN { commonName |
 member }
 MAY CONTAIN { description |
 organizationName |
 organizationalUnitName |
 owner |
 seeAlso |
 businessCategory }
 ID { objectClass 9 } }

6.9 (Residential Person)

residentialPerson OBJECT-CLASS ::= {
 SUBCLASS OF person
 MUST CONTAIN localityName


```

MAY CONTAIN    { localeAttributeSet |
                  postalAttributeSet |
                  preferredDeliveryMethod |
                  telecommunicationAttributeSet |
                  businessCategory }
ID              { objectClass 10 } }

```

6.10 (Application Process)

200)

```

applicationProcess OBJECT-CLASS ::= {
    MUST CONTAIN    commonName
    MAY CONTAIN     { description |
                    localityName |
                    organizationalUnitName |
                    seeAlso }
ID                 { objectClass 11 } }

```

6.11 (Application Entity)

OSI

```

applicationEntity OBJECT-CLASS ::= {
    MUST CONTAIN    { commonName |
                    presentationAddress }
    MAY CONTAIN     { description |
                    localityName |
                    organizationalName |
                    seeAlso |
                    supportedApplicationContext }
ID                 { objectClass 12 } }

```

- 가

6.12 DSA

DSA DSA . DSA X.501

```

dSA OBJECT-CLASS ::= {
    MUST CONTAIN    applicationEntity
    MAY CONTAIN     knowledgeInformation
ID                 { objectClass 13 } }

```

6.13 (Device)

```

device OBJECT-CLASS ::= {
    MUST CONTAIN    commonName
    MAY CONTAIN     { description |
                    localityName |
                    organizationName,
                    organizationalUnitName |
                    owner |
                    serialNumber }
    ID              { objectClass 14 } }

```

- localityName, serialNumber, owner

6.14 (Strong Authentication User)

X.509

```

strongAuthenticationUser OBJECT-CLASS ::= {
    MUST CONTAIN    userCertificate
    ID              { objectClass 15 } }

```

6.15 (Certification Authority)

X.509

```

certificationAuthority OBJECT-CLASS ::= {
    MUST CONTAIN    { cACertificate |
                    certificationRevocationList |
                    authorityRevocationList }
    MAY CONTAIN     crossCertificatePair
    ID              { objectClass 16 } }

```

3

7

7.1

가

```

countryNameBinding  NAME - BINDING ::= {
    NAME                country
    WITH ATTRIBUTES    { countryName }
    ID                  { nameBinding 1 } }

```

7.2

가

```

locNameBinding NAME-BINDING ::= {
    NAMES                locality
    WITH ATTRIBUTES    { localityName
    ID                  { nameBinding 2 } } }

```

7.3

가

```

sOPNameBinding NAME-BINDING ::= {
    NAMES                locality
    WITH ATTRIBUTES    { stateOrProvinceName }
    ID                  { nameBinding 3 } }

```

7.4

가

```

orgNameBinding NAME-BINDING ::= {
    NAMES                organization
    WITH ATTRIBUTES    { organizationName }
    ID                  { nameBinding 4 } }

```

7.5

가

```

orgUnitNameBinding NAME-BINDING ::= {
    NAMES                organizationalUnit
    WITH ATTRIBUTES    { organizationalUnitName }
    ID                  { nameBinding 5 } }

```

7.6

가

```

personNameBinding NAME-BINDING ::= {
    NAMES                person
    WITH ATTRIBUTES    { commonName }
    ID                  { nameBinding 6 } }

```

7.7

가

```
orgPersonNameBinding NAME-BINDING ::= {  
    NAMES                organizationalPerson  
    WITH ATTRIBUTES      { commonName }  
    ID                    { nameBinding 7 } }
```

7.8

가

```
orgRoleNameBinding NAME-BINDING ::= {  
    NAMES                organizationalRole  
    WITH ATTRIBUTES      { commonName }  
    ID                    { nameBinding 8 } }
```

7.9

가

```
gONNameBinding NAME-BINDING ::= {  
    NAMES                groupOfNames  
    WITH ATTRIBUTES      { commonName }  
    ID                    { nameBinding 9 } }
```

7.10

가

```
resPersonNameBinding NAME-BINDING ::= {  
    NAMES                residentialPerson  
    WITH ATTRIBUTES      { commonName }  
    ID                    { nameBinding 10 } }
```

7.11

가

```
applProcessNameBinding NAME-BINDING ::= {  
    NAMES                applicationProcess  
    WITH ATTRIBUTES      { commonName }  
    ID                    { nameBinding 11 } }
```

7.12

가

```

applEntityNameBinding NAME-BINDING ::= {
    NAMES                applicationEntity
    WITH ATTRIBUTES      { commonName }
    ID                   { nameBinding 12 } }

```

7.13

가

.

```

deviceNameBinding NAME-BINDING ::= {
    NAMES                device
    WITH ATTRIBUTES      { commonName }
    ID                   { nameBinding 13 } }

```

A

ASN.1

.

ASN.1

ASN.1

, SelectedObject

Classes

SelectedObjectClasses { joint-iso-ccitt ds(5) modules(1) selectedObjectClasses(6) }

DEFINITIONS ::=

BEGIN

--EXPORTS ALL

IMPORTS

objectClass, attributeSet, informationFramework, selectedAttributeTypes

FROM UsefulDefintions { joint-iso-ccitt ds(5) modules(1)

UsefuleDefinitions(0) },

OBJECT-CLASS, ATTRIBUTE-SET, Top, Alias

FROM InformatiponFramework informationFramework

authorityRevocationList, businessCategory, cACertificate,

certificationRevocationList, commonName, countryName, description, destinationIndicator,

facsimileTelephoneNumber, internationalISDNNumber, knowledgwInformation, localityName,

member, organizationName, organizationalUnitName, owner, physicalDeliveryOfficeName,

postOfficeBox, postalAddress, postalCode, preferredDeliveryMethod, presentation Address,

registeredAddress, roleOccupant, searchGuide, seeAlso, serialNumber, stateOrProvinceName,

streetAddress, supportedAppicationContext, surname, telephoneNumber,

teletexTerminalIdentificer, telexNumber, title, userPassword, x121Address

FROM SelectedAttributeTypes selectedAttributeTypes;

-- Attribute sets

telecommunicationAttributeSet ATTRIBUTE ::= {

facsimileT elephoneNumber,

internationalISDNNumber,

tltelephoneNumber,

tlteletexTerminalIdentifier,

telexNumber,

prederredDeliveryMethod,

destinationIdentifier,

registeredAddress,

```

        x121Address }

postalAttributeSet ATTRIBUTE ::= {
    physicalDeliveryOfficeName,
    postalAddress,
    postalCode,
    postOfficeBox,
    streetAddress }

localeAttributeSet ATTRIBUTE ::= {
    localityName,
    sateOrProvinceName,
    sreetAddress }

ortganiozationalAttributeSet ATTRIBUTE ::= {
    description,
    localeAttributeSet,
    postalAttributeSet,
    telecommunicationAttributeSet,
    businessCategory,
    seeAlso,
    searhGuide,
    userPassword }

-- Object Classes

country OBJECT-CLASS ::= {
    MUST CONTAIN    countryName
    MAY CONTAIN     { description |
                    searchGuide }
    ID              { objectClass 2 } }

locality OBJECT-CLASS ::= {
    MAY CONTAIN     { description |
                    searchGuide |
                    localeAttributeSet |
                    seeAlso }
    ID              { objectClass 3 } }

organization OBJECT-CLASS ::= {
    MUST CONTAIN    organizationName
    MAY CONTAIN     organizationalAttributeSet
    ID              { objectClass 4 } }

organizationalUnit OBJECT-CLASS ::= {
    MUST CONTAIN    organizationalUnitName
    MAY CONTAIN     organizationalAttributeSet
    ID              { objectClass 5 } }

person OBJECT-CLASS ::= {

```

```

MUST CONTAIN    { commonName, surname }
MAY CONTAIN     { description |
                  telephoneNumber |
                  userPassword |
                  seeAlso }
ID              { objectClass 6 } }

organizationalPerson OBJECT-CLASS ::= {
  SUBCLASS OF    person
  MAY CONTAIN    { localeAttributeSet |
                  postalAttributeSet |
                  telecommunicationAttributeSet |
                  organizationalUnitName |
                  title }
  ID              { objectClass 7 } }

organizationalRole OBJECT-CLASS ::= {
  MUST CONTAIN   commonName
  MAY CONTAIN    { description |
                  localeAttributeSet |
                  organizationalUnitName |
                  postalAttributeSet |
                  preferredDeliveryMethod |
                  roleOccupant |
                  seeAlso |
                  telecommunicationAttributeSet }
  ID              { objectClass 8 } }

groupOfNames OBJECT-CLASS ::= {
  MUST CONTAIN   { commonName |
                  member }
  MAY CONTAIN    { description |
                  organizationName |
                  organizationalUnitName |
                  owner |
                  seeAlso |
                  businessCategory }
  ID              { objectClass 9 } }

residentialPerson OBJECT-CLASS ::= {
  SUBCLASS OF    person
  MUST CONTAIN   localityName
  MAY CONTAIN    { localeAttributeSet |
                  postalAttributeSet |
                  preferredDeliveryMethod |
                  telecommunicationAttributeSet |
                  businessCategory }
  ID              { objectClass 10 } }

applicationProcess OBJECT-CLASS ::= {

```



```

        MUST CONTAIN    commonName
        MAY CONTAIN      { description |
                           localityName |
                           organizationalUnitName |    seeAlso }
        ID                { objectClass 11 } }

applicationEntity OBJECT-CLASS ::= {
        MUST CONTAIN    { commonName |
                           presentationAddress }
        MAY CONTAIN      { description |
                           localityName |
                           organizationalName |
                           seeAlso |
                           supportedApplicationContext }
        ID                { objectClass 12 } }

dsa OBJECT-CLASS ::= {
        MUST CONTAIN    applicationEntity
        MAY CONTAIN      knowledgeInformation
        ID                { objectClass 13 } }

device OBJECT-CLASS ::= {
        MUST CONTAIN    commonName
        MAY CONTAIN      { description |
                           localityName |
                           organizationNae,
                           organizationalUnitName |
                           owner |
                           seeAlos |
                           serialNumber }
        ID                { objectClass 14 } }

strongAuthenticationUser OBJECT-CLASS ::= {
        MUST CONTAIN    userCertificate
        ID                { objectClass 15 } }

certificationAuthority OBJECT-CLASS ::= {
        MUST CONTAIN    { cACertificate |

                           certificationRevocationList |
                           authorityRevocationList }
        MAY CONTAIN      crossCertificatePair
        ID                { objectClass 16 } }

-- Name bindings

countryNameBinding NAME-BINDING ::= {
        NAMES                country
        WITH ATTRIBUTES      { countryName }
        ID                    { nameBinding 1 } }

```

```

locNameBinding NAME-BINDING ::= {
    NAMES                locality
    WITH ATTRIBUTES      { localityName }
    ID                    { nameBinding 2 } }

sOPNameBinding NAME-BINDING ::= {
    NAMES                locality
    WITH ATTRIBUTES      { stateOrProvinceName }
    ID                    { nameBinding 3 } }

orgNameBinding NAME-BINDING ::= {
    NAMES                organization
    WITH ATTRIBUTES      { organizationName }
    ID                    { nameBinding 4 } }

orgUnitNameBinding NAME-BINDING ::= {
    NAMES                organizationalUnit
    WITH ATTRIBUTES      { organizationalUnitName }
    ID                    { nameBinding 5 } }

personNameBinding NAME-BINDING ::= {
    NAMES                person
    WITH ATTRIBUTES      { commonName }
    ID                    { nameBinding 6 } }

orgPersonNameBinding NAME-BINDING ::= {
    NAMES                organizationalPerson
    WITH ATTRIBUTES      { commonName }
    ID                    { nameBinding 7 } }

orgRoleNameBinding NAME-BINDING ::= {
    NAMES                organizationalRole
    WITH ATTRIBUTES      { commonName }
    ID                    { nameBinding 8 } }

gONNameBinding NAME-BINDING ::= {
    NAMES                groupOfNames
    WITH ATTRIBUTES      { commonName }
    ID                    { nameBinding 9 } }

resPersonNameBinding NAME-BINDING ::= {
    NAMES                residentialPerson
    WITH ATTRIBUTES      { commonName }
    ID                    { nameBinding 10 } }

applProcessNameBinding NAME-BINDING ::= {
    NAMES                applicationProcess
    WITH ATTRIBUTES      { commonName }
    ID                    { nameBinding 11 } }

applEntityNameBinding NAME-BINDING ::= {

```

```

        NAMES                applicationEntity
        WITH ATTRIBUTES      { commonName }
        ID                   { nameBinding 12 } }

deviceNameBinding NAME-BINDING ::= {
    NAMES                device
    WITH ATTRIBUTES      { commonName }
    ID                   { nameBinding 13 } }
END

```

B

DIT

.

B.1

countryName

.

Root country

.

```
sr1    DIT StructureRule ::= {  
        IDENTIFIER      1,  
        NAME BINDING    countryNameBinding }  
.
```

B.2

organizationName

.

Root,country locality organization

.

```
- organization  
  organizationName  
.
```

```
sr2    DIT StructureRule ::= {  
        IDENTIFIER      2,  
        NAME BINDING    orgNameBinding }  
.
```

```
sr3    DIT StructureRule ::= {  
        IDENTIFIER      3,  
        NAME BINDING    orgNameBinding,  
        SUPRRIOR RULES  { 1 } }  
.
```

```
sr4    DIT StructureRule ::= {  
        IDENTIFIER      4,  
        NAME BINDING    orgNameBinding,  
        SUPRRIOR RULES  { 5, 6, 7, 8, 9 } }  
.
```

B.3

localityName stateOrProvinceName

.

```
-          stateOrprovinceName          B.12  
.
```

Root, country, locality, organization, organizationalUnit locality

```

sr5    DITStructureRule ::= {
        IDENTIFIER      5,
        NAME BINDING    locNameBinding }

sr6    DITStructureRule ::= {
        IDENTIFIER      6,
        NAME BINDING    locNameBinding,
        SUPERIOR RULES  { 1 } }

sr7    DITStructureRule ::= {
        IDENTIFIER      7,
        NAME BINDING    locNameBinding,
        SUPERIOR RULES  { 5, 6 7, 8, 9 } }

sr8    DITStructureRule ::= {
        IDENTIFIER      8,
        NAME BINDING    locNameBinding,
        SUPERIOR RULES  { 2, 3, 4 } }

sr9    DITStructureRule ::= {
        IDENTIFIER      9,
        NAME BINDING    locNameBinding,
        SUPERIOR RULES  { 10, 11, 12 } }

```

B.4

organizationalUnitName

organization, organizationalUnit locality otganizationalUnit

```

sr10   DITStructureRule ::= {
        IDENTIFIER      10,
        NAME BINDING    orgUnitNameBinding,
        SUPERIOR RULES  { 2, 3, 4 } }

sr11   DITStructureRule ::= {
        IDENTIFIER      11,
        NAME BINDING    orgUnitNameBinding,
        SUPERIOR RULES  { 10, 11, 12 } }

sr12   DITStructureRule ::= {
        IDENTIFIER      12,
        NAME BINDING    orgUnitNameBinding,
        SUPERIOR RULES  { 5, 6, 7, 8, 9 } }

```

B.5


```

sr19    DIT StructureRule ::= {
        IDENTIFIER      19,
        NAME BINDING     gonNameBinding,
        SUPERIOR RULES   { 10, 11, 12 } }

```

B.8

```

commonName      streetAddress      , streetAddress
.

```

```

locality    residentialPerson      .

```

```

sr20    DIT StructureRule ::= {
        IDENTIFIER      20,
        NAME BINDING     resPersonNameBinding,
        SUPERIOR RULES   { 5, 6, 7, 8, 9 } }

```

B.9

```

commonName      .      commonName      -
(X.200      ).

```

```

applicationProcess    applicationEntity      .

```

```

sr21    DIT StructureRule ::= {
        IDENTIFIER      21,
        NAME BINDING     applEntityNameBinding,
        SUPERIOR RULES   { 24, 25 } }

```

B.10

```

commonName      .

```

```

organization    organizationalUnit      .

```

```

sr22    DIT StructureRule ::= {
        IDENTIFIER      22,
        NAME BINDING     deviceNameBinding,
        SUPERIOR RULES   { 2, 3, 4 } }

```

```

sr23    DIT StructureRule ::= {
        IDENTIFIER      23,
        NAME BINDING     deviceNameBinding,
        SUPERIOR RULES   { 10, 11, 12 } }

```

B.11

```

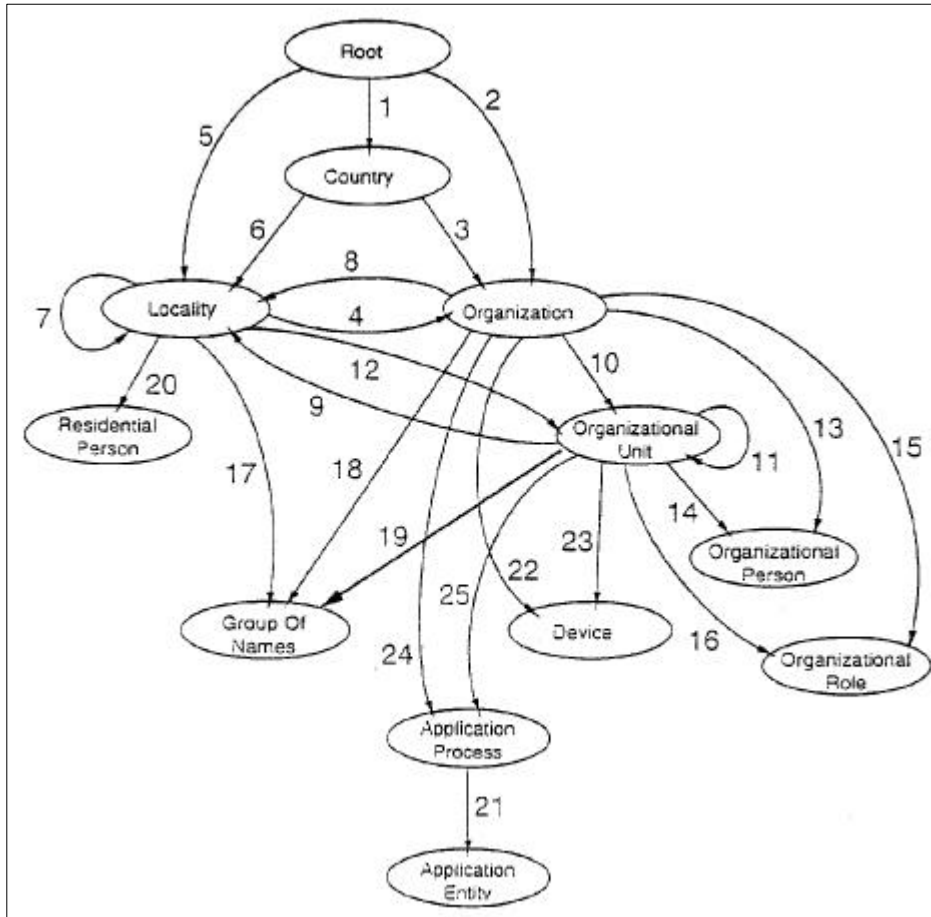
commonName      .

```

```

organization    organizationalUnit    applicationProcess

```

B1 - DIT