**Folder Subscription (Figure 26.4.2.6.2-1):**

@startuml

skinparam svgDimensionStyle false

skinparam BoxPadding 30

skinparam sequence {

ParticipantBackgroundColor gold

LifeLineBackgroundColor gold

}

hide footbox

autonumber

box "Clinical EMR"

participant "Document Metadata \n Subscriber" as subscriber

participant "Document Metadata \n Notification Recipient" as recipient

participant "Document Consumer" as consumer

end box

box "LIS"

participant "Document Source" as lis

end box

box "RIS"

participant "Document Source" as ris

end box

box "RHIO"

participant "Integrated Publisher/\n Notification Broker" as broker

participant "XDS Document \n Registry" as registry

participant "XDS Document \n Repository" as repository

end box

subscriber->broker: Document Metadata Subscribe [ITI-52] \n //Parameters:XDSFolder.uniqueID=ID"//

activate subscriber

activate broker

deactivate broker

deactivate subscriber

lis->repository: Provide and Register Document Set-b [ITI-41] \n //metadata:XDSFolder.uniqueID=ID"//

activate lis

activate repository

deactivate lis

repository->registry: Register Document Set-b [ITI-42]

activate registry

deactivate repository

registry-->broker: Internal Transaction

activate broker

deactivate registry

broker->recipient: Document Metatada Notify [ITI-53]

activate recipient

deactivate broker

recipient-->consumer: Internal Transaction

activate consumer

deactivate recipient

consumer->registry: Registry Stored Query [ITI-18]

activate registry

deactivate registry

consumer->repository: Retrieve Document Set [ITI-43]

activate repository

deactivate repository

deactivate consumer

ris->repository: Provide and Register Document Set-b [ITI-41] \n //metadata:XDSFolder.uniqueID=ID"//

activate ris

activate repository

deactivate ris

repository->registry: Register Document Set-b [ITI-42]

activate registry

deactivate repository

registry-->broker: Internal Transaction

activate broker

deactivate registry

broker->recipient: Document Metatada Notify [ITI-53]

activate recipient

deactivate broker

recipient-->consumer: Internal Transaction

activate consumer

deactivate recipient

deactivate consumer

|||

@enduml

**GP’s EHR notification (Figure 26.4.2.7.2-1)**

@startuml

skinparam svgDimensionStyle false

skinparam BoxPadding 30

skinparam defaulttextalignment center

skinparam sequence {

ParticipantBackgroundColor gold

LifeLineBackgroundColor gold

}

hide footbox

autonumber

box "Local Health \n Information System"

participant "Document Metadata \n Notification Recipient" as recipient

participant "Notification Pull \n Point" as pullpoint

end box

box "GP's EHR"

participant "Document Metadata \n Subscriber" as subscriber

participant "Notification Puller" as puller

participant "Document Consumer" as consumer

end box

box "Emergency Department Information System"

participant "Document Source" as source

end box

box "RHIO"

participant "Integrated Publisher/\n Notification Broker" as broker

participant "XDS Document \n Registry" as registry

participant "XDS Document \n Repository" as repository

end box

activate subscriber

subscriber->pullpoint: Create Destroy Pull Point [ITI-69]

activate pullpoint

deactivate pullpoint

subscriber->broker: Document Metadata Subscribe [ITI-52]

activate broker

deactivate broker

deactivate subscriber

source->repository: Provide and Register Document Set-b [ITI-41] \n //metadata:XDSFolder.uniqueID=ID"//

activate source

activate repository

deactivate source

repository->registry: Register Document Set-b [ITI-42]

activate registry

deactivate repository

registry-->broker: Internal Transaction

activate broker

deactivate registry

broker->recipient: Document Metatada Notify [ITI-53]

activate recipient

deactivate broker

deactivate recipient

puller->pullpoint: Notification Pull [ITI-70]

activate puller

activate pullpoint

deactivate pullpoint

puller-->consumer: Internal Transaction

activate consumer

deactivate puller

consumer->registry: Registry Stored Query [ITI-18]

activate registry

deactivate registry

consumer->repository: Retrieve Document Set [ITI-43]

activate repository

deactivate repository

deactivate consumer

|||

@enduml

**patient-independent subscription (Figure 26.4.2.8.2-1)**

@startuml

skinparam svgDimensionStyle false

skinparam BoxPadding 30

skinparam defaulttextalignment center

skinparam sequence {

ParticipantBackgroundColor gold

LifeLineBackgroundColor gold

}

hide footbox

autonumber

box "Consultant"

participant "Document Metadata \n Notification Recipient" as recipient

participant "Document Metadata \n Subscriber" as subscriber

end box

box "Consult Requester"

participant "Document Source" as source

end box

box "RHIO"

participant "Integrated Publisher/\n Notification Broker" as broker

participant "XDS Document \n Registry" as registry

participant "XDS Document \n Repository" as repository

end box

subscriber->broker: Document Metadata Subscribe [ITI-52] (Doctype: Consult Request)

activate subscriber

activate broker

deactivate broker

deactivate subscriber

source->repository: Provide and Register Document Set-b [ITI-41] (Consult Request)

activate source

activate repository

deactivate source

repository->registry: Register Document Set-b [ITI-42]

activate registry

deactivate repository

registry-->broker: Internal Transaction

activate broker

deactivate registry

broker->recipient: Document Metatada Notify [ITI-53]

activate recipient

deactivate broker

deactivate recipient

|||

@enduml

**Document Metadata Update Notification (Figure 26.4.2.9.2-1)**

@startuml

skinparam svgDimensionStyle false

skinparam BoxPadding 30

skinparam sequence {

ParticipantBackgroundColor gold

LifeLineBackgroundColor gold

}

hide footbox

autonumber

title "Document Metadata Update Notification"

box "HIS"

participant "Document Metadata \n Subscriber" as 1

participant "Document Metadata \n Notification Recipient" as 2

participant "Document Consumer" as 3

end box

box "RIS"

participant "Document Source" as 4

participant "Document Administrator" as 5

end box

box "RHIO"

participant "Notification Broker" as 6

participant "XDS \n Document Registry" as 7

participant "XDS \n Document Repository" as 8

end box

1->6: Document Metadata Subscribe [ITI-52]

activate 1

activate 6

deactivate 1

deactivate 6

4->8: Provide and Register Document Set-b [ITI-41]

activate 4

activate 8

deactivate 4

8->7: Register Document Set-b [ITI-42]

deactivate 8

activate 7

7-->6: Internal Transaction

deactivate 7

activate 6

note over 6: Metadata don't match \n subscription parameters

5->7: Update Document Set [ITI-57]

activate 5

deactivate 6

deactivate 5

activate 7

7-->6: Internal Transaction

deactivate 7

activate 6

note over 6: Metadata match \n subscription parameters

6->2: Document Metadata Notify [ITI-53]

deactivate 6

activate 2

2-->3: Internal Transaction

deactivate 2

activate 3

3->8: Retrieve Document Set [ITI-43]

activate 8

deactivate 3

deactivate 8

|||

@enduml

**Subscription management by another system (Figure 26.4.2.10.2-1):**

@startuml

skinparam svgDimensionStyle false

skinparam BoxPadding 30

skinparam sequence {

ParticipantBackgroundColor gold

LifeLineBackgroundColor gold

}

hide footbox

autonumber

title "Subscription management by another system"

box "HIS"

participant "Document Metadata \n Subscriber" as 1

participant "Document Metadata \n Notification Recipient" as 2

end box

participant "Notification Broker" as 3

box "Subscription Administrator"

participant "Document Metadata Subscriber" as 4

end box

1->3: Document Metadata Subscribe [ITI-52]

activate 1

activate 3

deactivate 3

deactivate 1

4->3: Document Subscription Search [ITI-1XX]

activate 3

activate 4

deactivate 4

deactivate 3

4->3: Document Metadata Subscribe [ITI-52]

activate 3

activate 4

3->2: Document Metadata Notify [ITI-53]

activate 2

deactivate 4

deactivate 3

deactivate 2

|||

@enduml

**Interaction diagram**

**Figure 3.53.4-1: Document Metadata Notify Sequence**

@startuml

skinparam svgDimensionStyle false

skinparam BoxPadding 30

skinparam defaulttextalignment center

skinparam ParticipantBorderColor white

hide footbox

participant "Document Metadata \n Notification Broker" as 1 #white

participant "Document Metadata \n Notification Recipient" as 2 #white

skinparam LifeLineBorderColor white

|||

activate 1

activate 2

1->2: Notify

1->2: Subscription Deactivation Notify

1->2: Extended Notify

|||

@enduml

**Interaction diagram**

**Figure 3.54.4-1: Document Metadata Publish Sequence**

@startuml

skinparam svgDimensionStyle false

skinparam BoxPadding 30

skinparam defaulttextalignment center

skinparam ParticipantBorderColor white

hide footbox

participant "Document Metadata \n Publisher" as 1 #white

participant "Document Metadata \n Notification Broker" as 2 #white

skinparam LifeLineBorderColor white

|||

activate 1

activate 2

1->2: Notify

1->2: Extended Notify

|||

@enduml

**Interaction diagram**

**Figure 3.120.4-1 Document Subscription Search Sequence**

@startuml

skinparam svgDimensionStyle false

skinparam BoxPadding 30

skinparam defaulttextalignment center

skinparam ParticipantBorderColor white

participant "Document Metadata \n Subscriber" as 1 #white

participant "Document Metadata \n Notification Broker" as 2 #white

skinparam LifeLineBorderColor white

|||

activate 1

activate 2

1->2: Subscription Search Request

2-->1: Subscription Search Response

|||

@enduml