CSE 406N
System Analysis, Design and Development

Group members:

Jakaria Mahmood	0405068
Amit Kumar Dutta	0405071
Fahian Ahmed	0405072
Sayeed Safayet Alam	0405088
Shahadat Hossain	0405089

Media Agency Management

Objective:

- List of Actors
- Subsystems
- Use Case diagram
- Use Case Glossary and Narratives
- Dependency diagram

Actors:

- Managing Director(MD)
- Media Manager
  - Outdoor Media Manager
    - Information Entry Section:
      - Boards entry operator
      - Bus entry operator
      - Led entry operator
      - Site Proposal operator
    - Implementation Section:
      - Plan generation operator
      - Work order generation operator
      - Pay order generation operator

Actors:

- ❑ Radio Media Manager
  - ❑ Information Entry Section:
    - ❑ Radio station entry operator
    - ❑ Schedule entry operator
  - ❑ Implementation Section:
    - ❑ Plan generation operator
    - ❑ Release order generation operator
- ❑ Supplier
- ❑ Client
- ❑ Advertiser
- ❑ Time

Subsystems:

- Outdoor System:
  - Supplier Offer Subsystem
  - Site Proposal Subsystem
  - Plan Generation Subsystem
  - Work Order Generation Subsystem
 - Pay Order Generation Subsystem
- Radio System:
  - Radio Station Subsystem
  - Radio Program Schedule Subsystem
  - Plan Generation Subsystem
  - Release Order Generation Subsystem

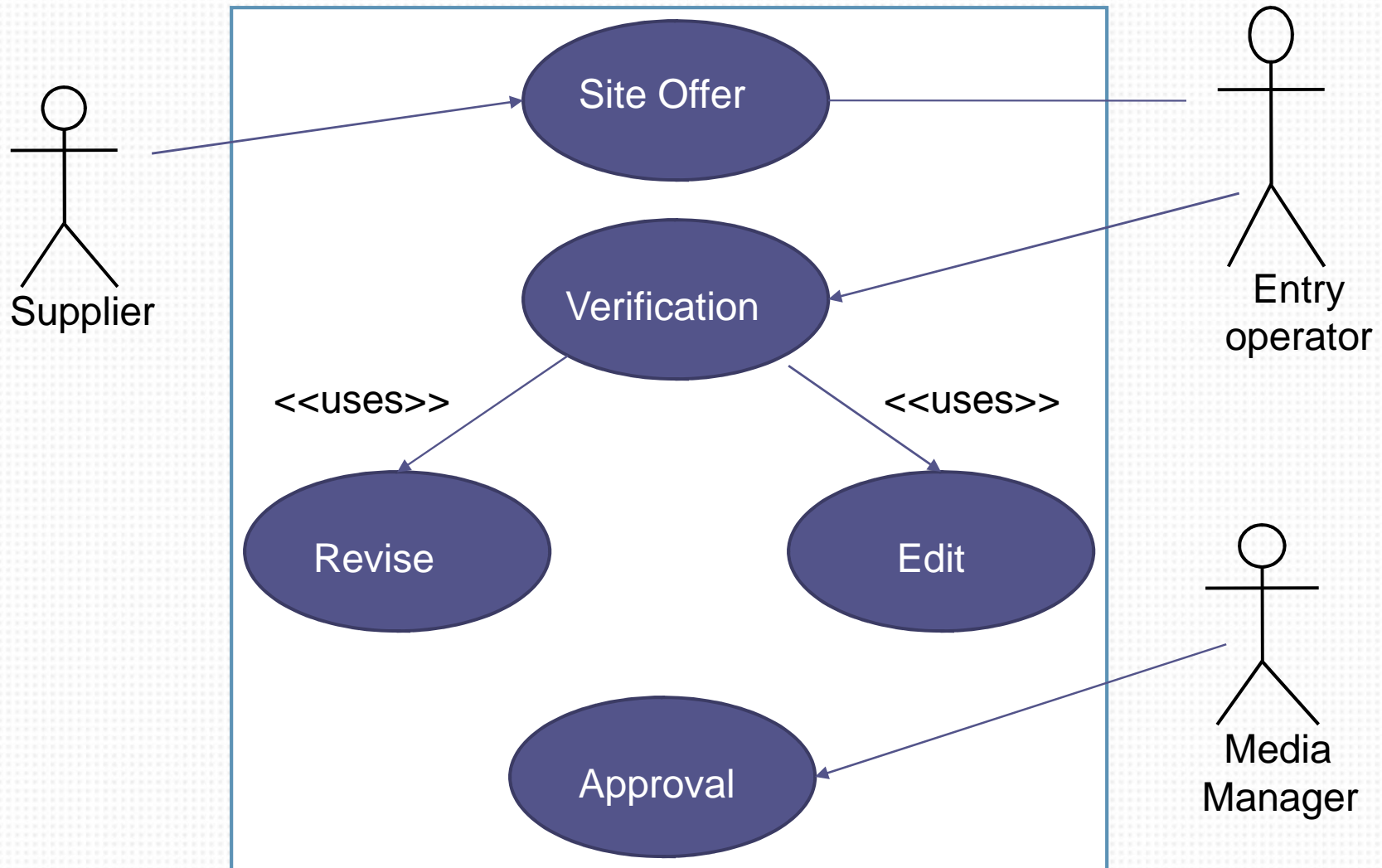# Use-Cases Glossary: Supplier Offer Subsystem

- Use Case of Site Rent:

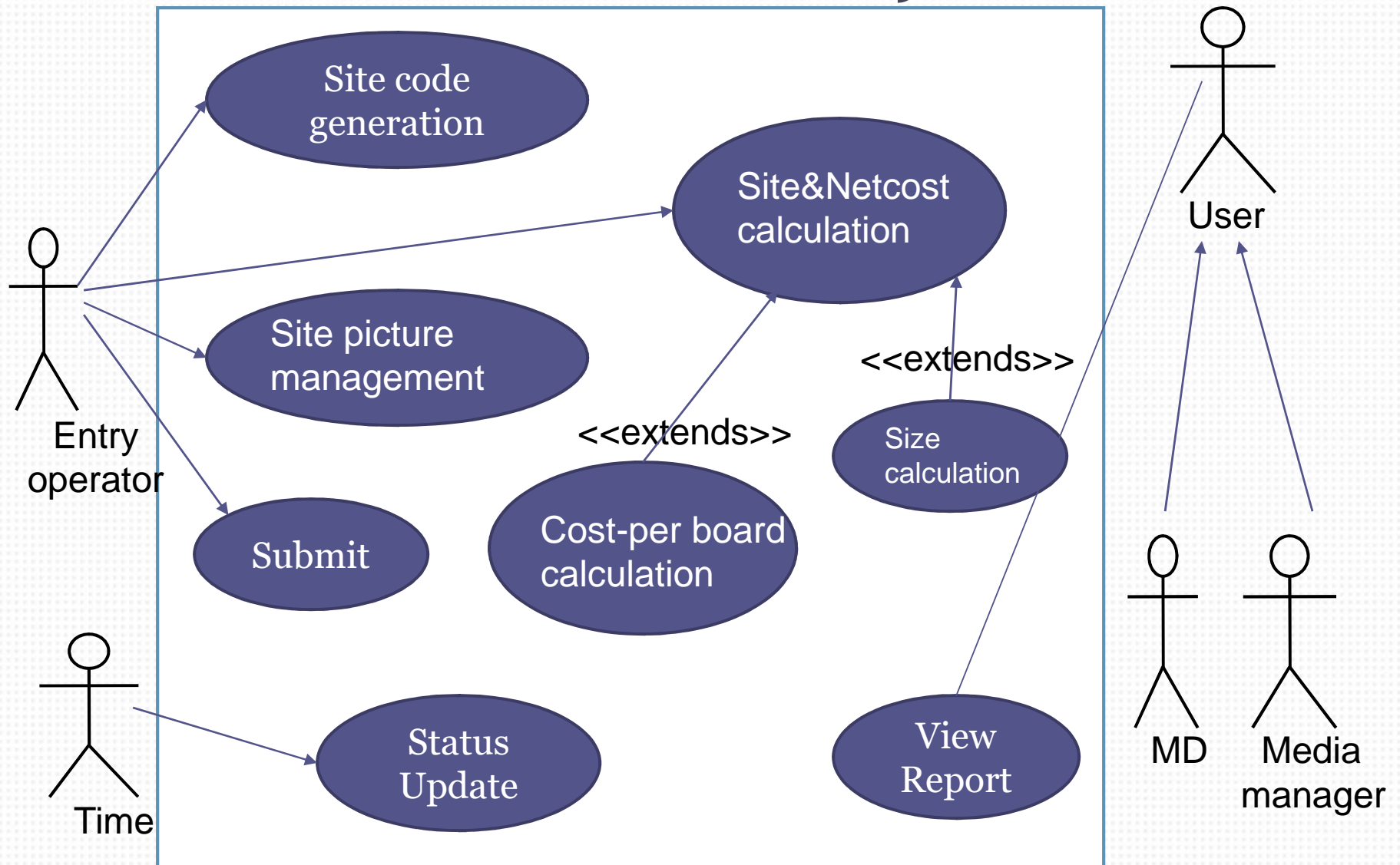| Use-case name	Actors
Offer from supplier	Supplier, Boards Entry operator
Verification	Boards Entry operator
Approval	Media manager
Site and Net cost calculation	Time,Supplier, Boards Entry operator
Site Picture Management	Supplier, Boards Entry operator
Cancel Unavailable Offers	Boards Entry operator
Site Identification	System, Boards Entry operator

Use-Cases for Site Identification
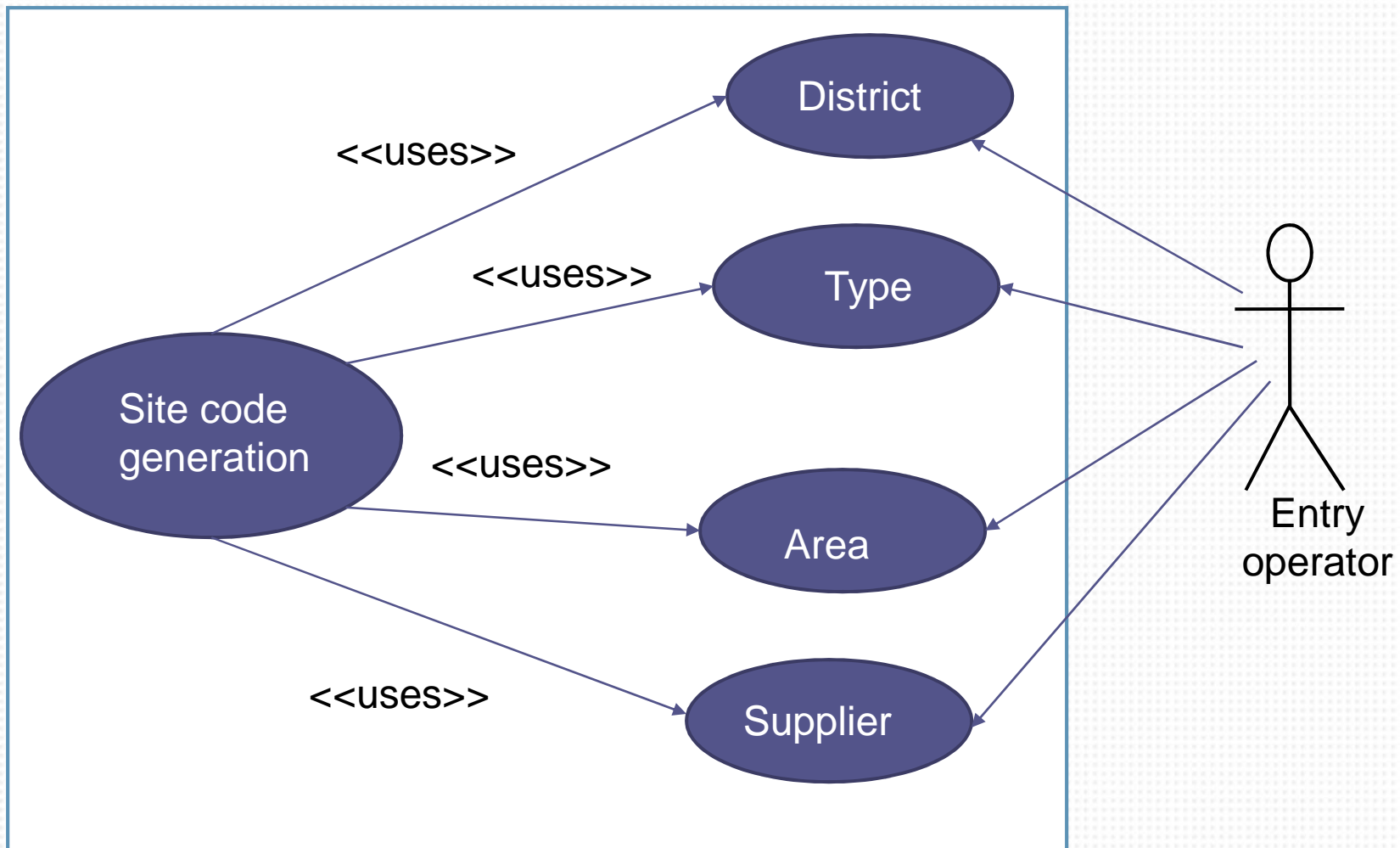
Use-Cases for Site Rent Subsystem
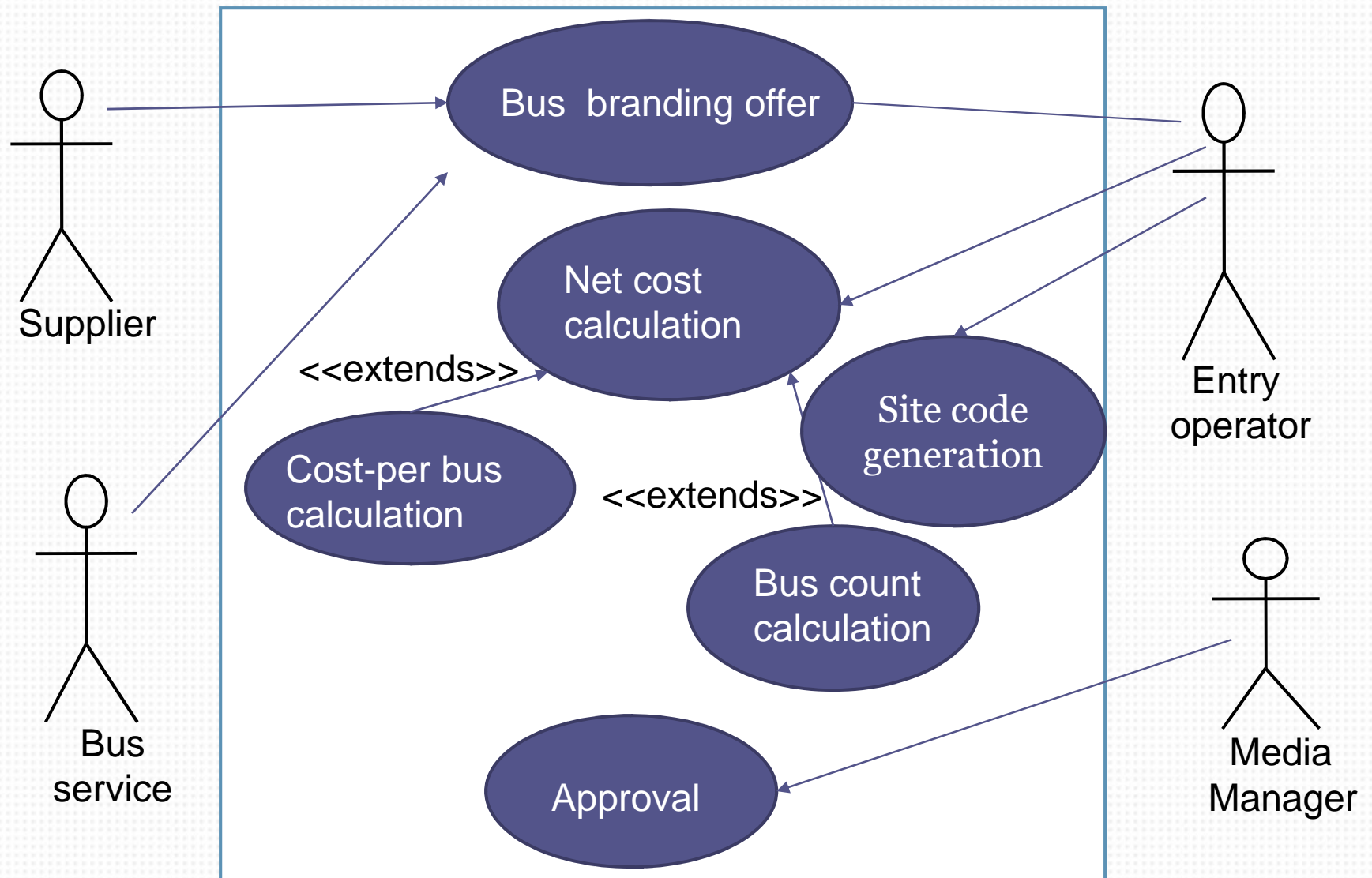
Use-Cases for Site Rent Subsystem

Use-Cases Glossary: Supplier Offer Subsystem(Contd..)

- Use Case of Bus Branding:

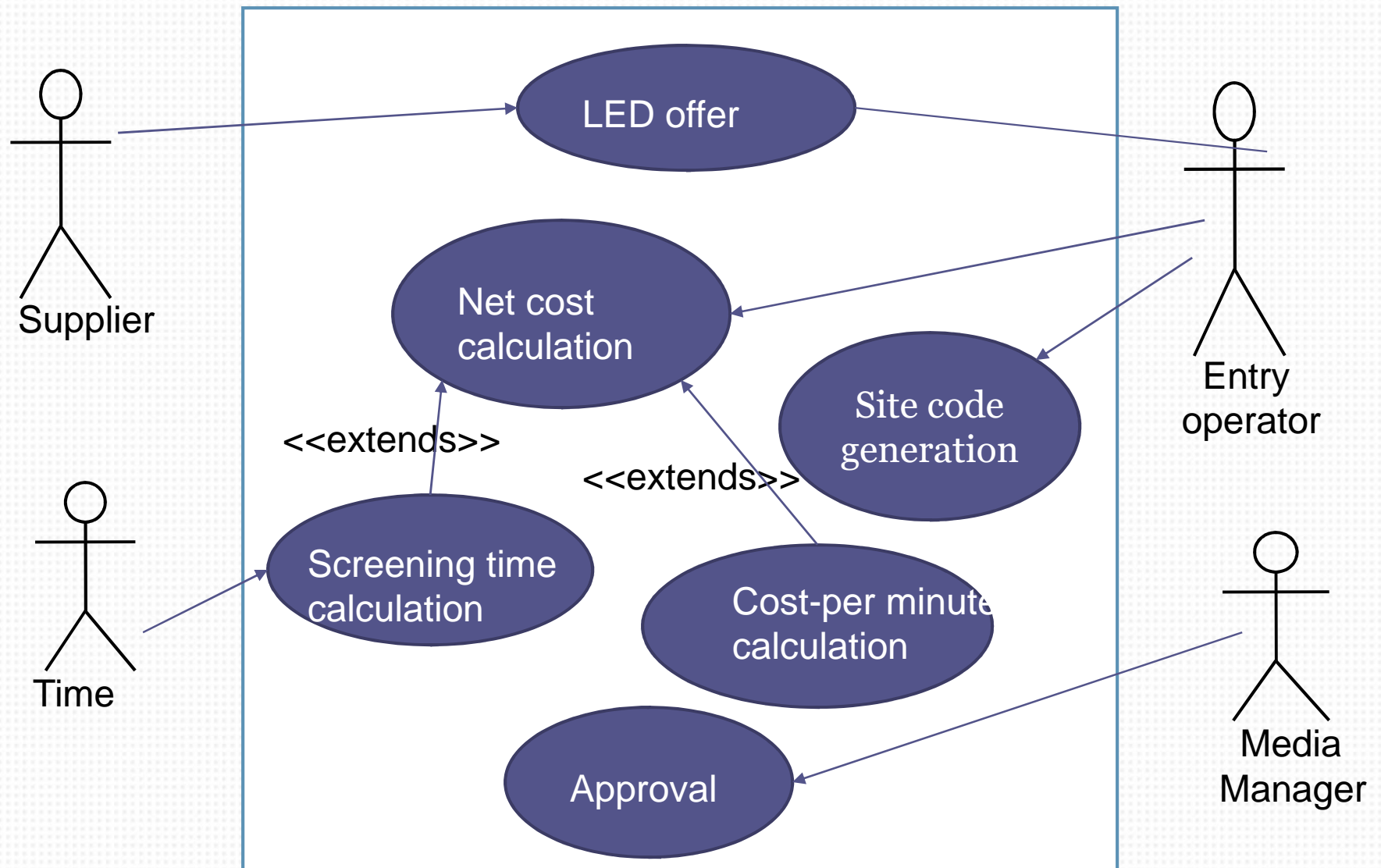| Use-case name	Actors
Site Identification	System,Bus entry operator
Bus branding offer	Supplier, Bus service, Bus entry operator
Net cost calculation	Supplier, Bus entry operator
Approval	Media manager

Use-Cases for Bus Branding Subsystem

Use-Cases Glossary: Supplier Offer Subsystem(Contd..)

- Use Case of LED:

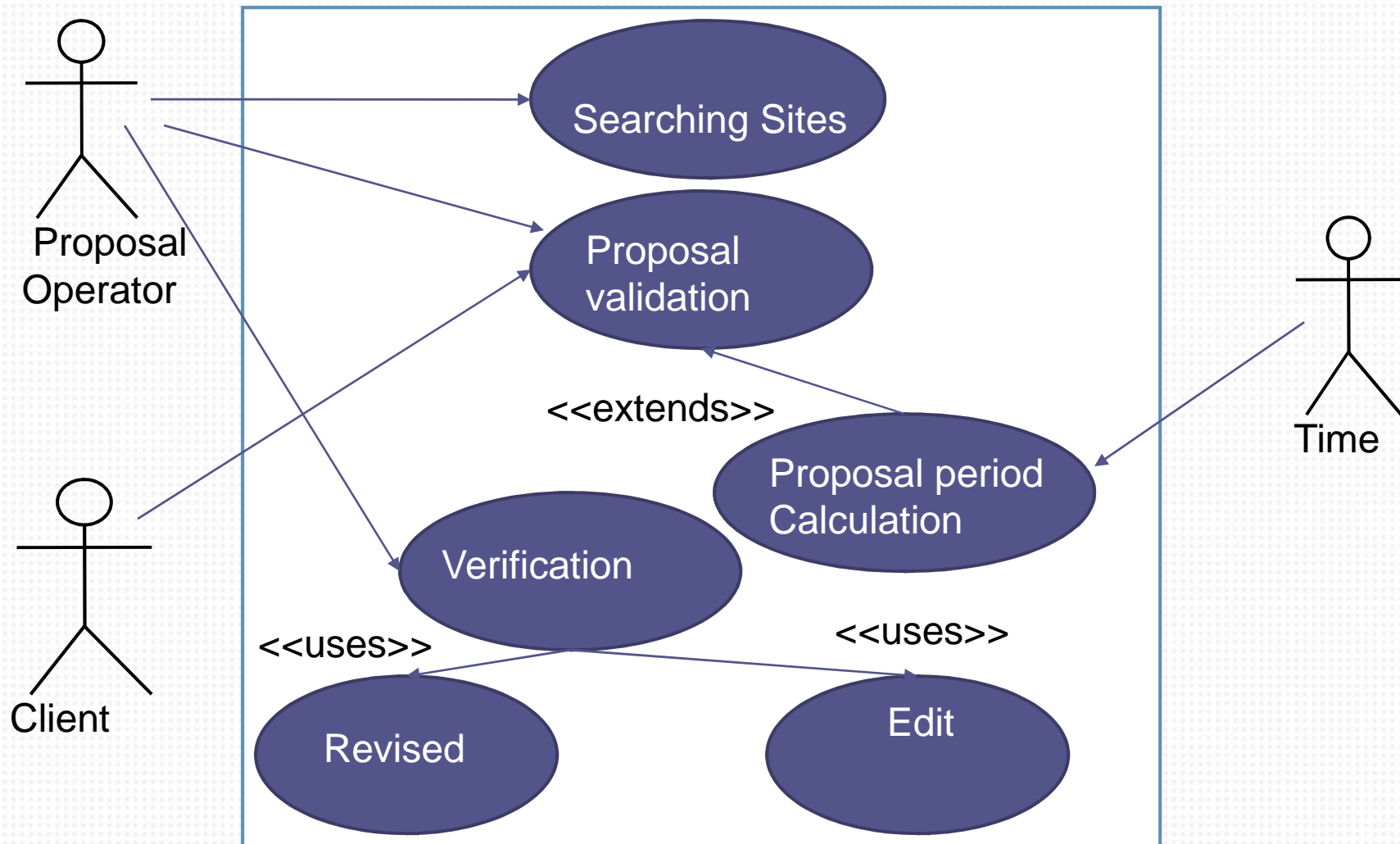| Use-case name	Actors
Site Identification	System, LED entry operator
LED offer	Supplier, LED entry operator
Net cost calculation	Supplier, Time, LED entry operator
Approval	Media manager

Use-Cases for LED Subsystem

Use-Cases Glossary: Site Proposal Subsystem

- Use Case of Proposal Generation:

Use-case name	Actors
Searching Sites	Site Proposal Operator
Proposal validation	Client, Time, Site Proposal Operator
Verification	Media Manager

Use-Cases for Site Proposal Generation Subsystem
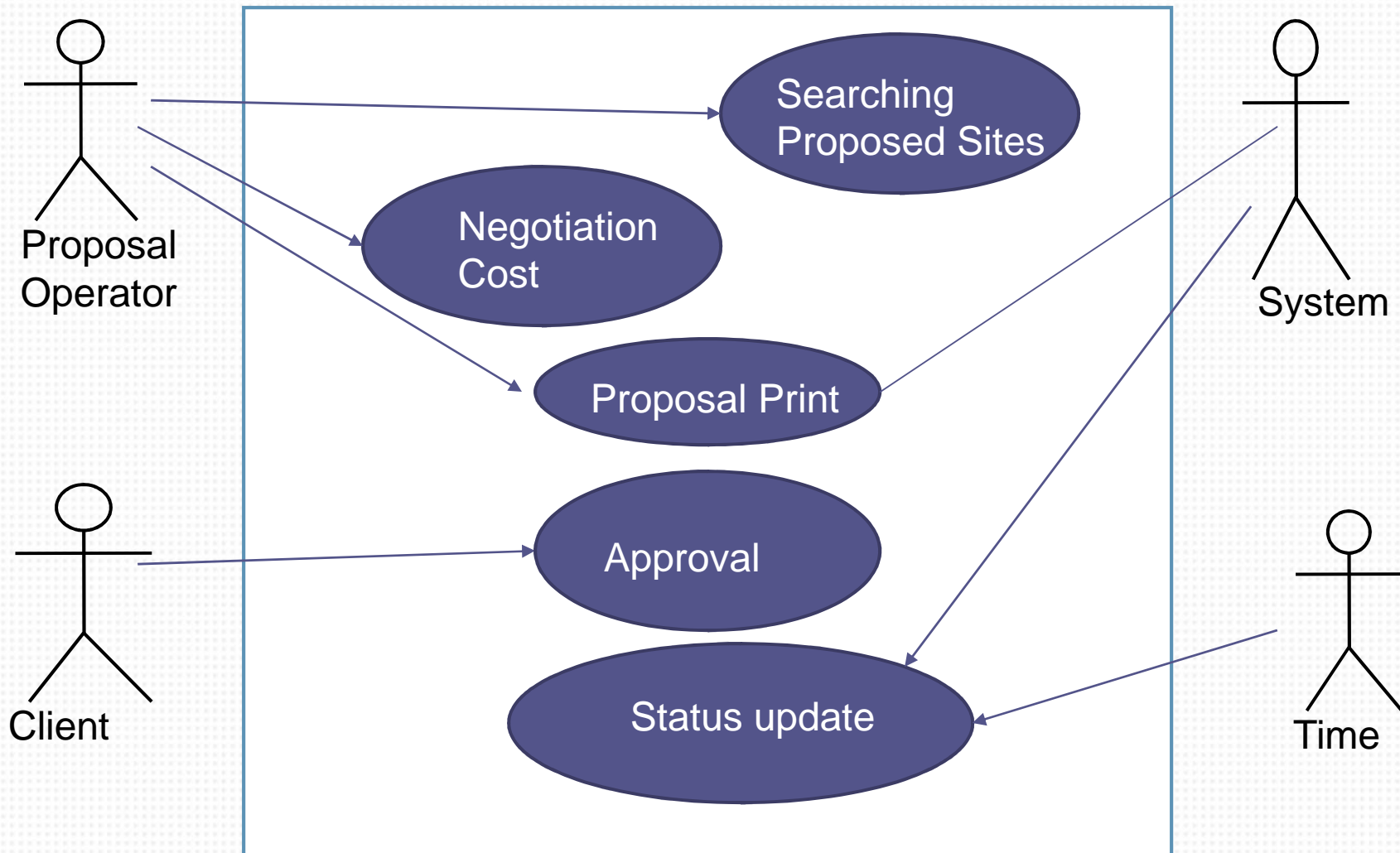
Use-Cases Glossary: Site Proposal Subsystem(contd..)

- Use Case of Proposal Approval:

Use-case name	Actors
Searching Proposed sites	Site Proposal Operator
Negotiation Cost	Site Proposal Operator
Proposal Print	Site Proposal Operator, System
Approval	Client
Status Update	System, Time

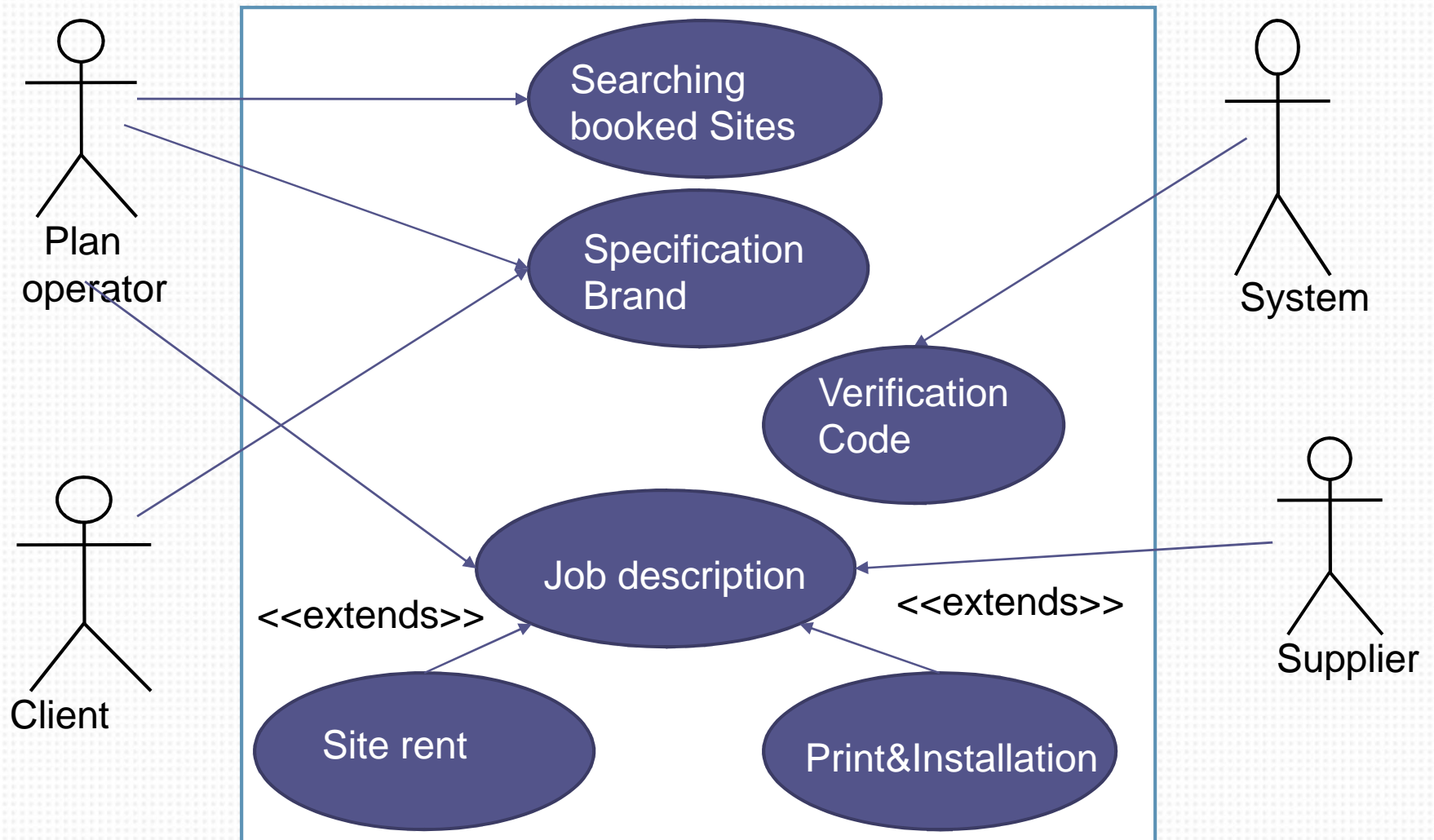# Use-Cases for Site Proposal Approval Subsystem(Contd..)

Use-Cases for Plan Implementation Subsystem

- Use case of Plan Generation:

Use-case Name	Actors
Searching booked Sites	Plan generation operator
Specification Brand	Plan generation operator,Cleint
Job description	Supplier, Plan generation operator
Verification code	System

Use-Cases for Plan generation Subsystem

Use-Cases Glossary: Plan Implementation Subsystem(cont)

- Use case of Plan Revise, Approval:

Use-case Name	Actors
Searching Planned Sites	Plan generation operator
Plan revision	Plan generation operator
Plan Print	Plan generation operator, System
Approval	Client,
Status Update	System, Time

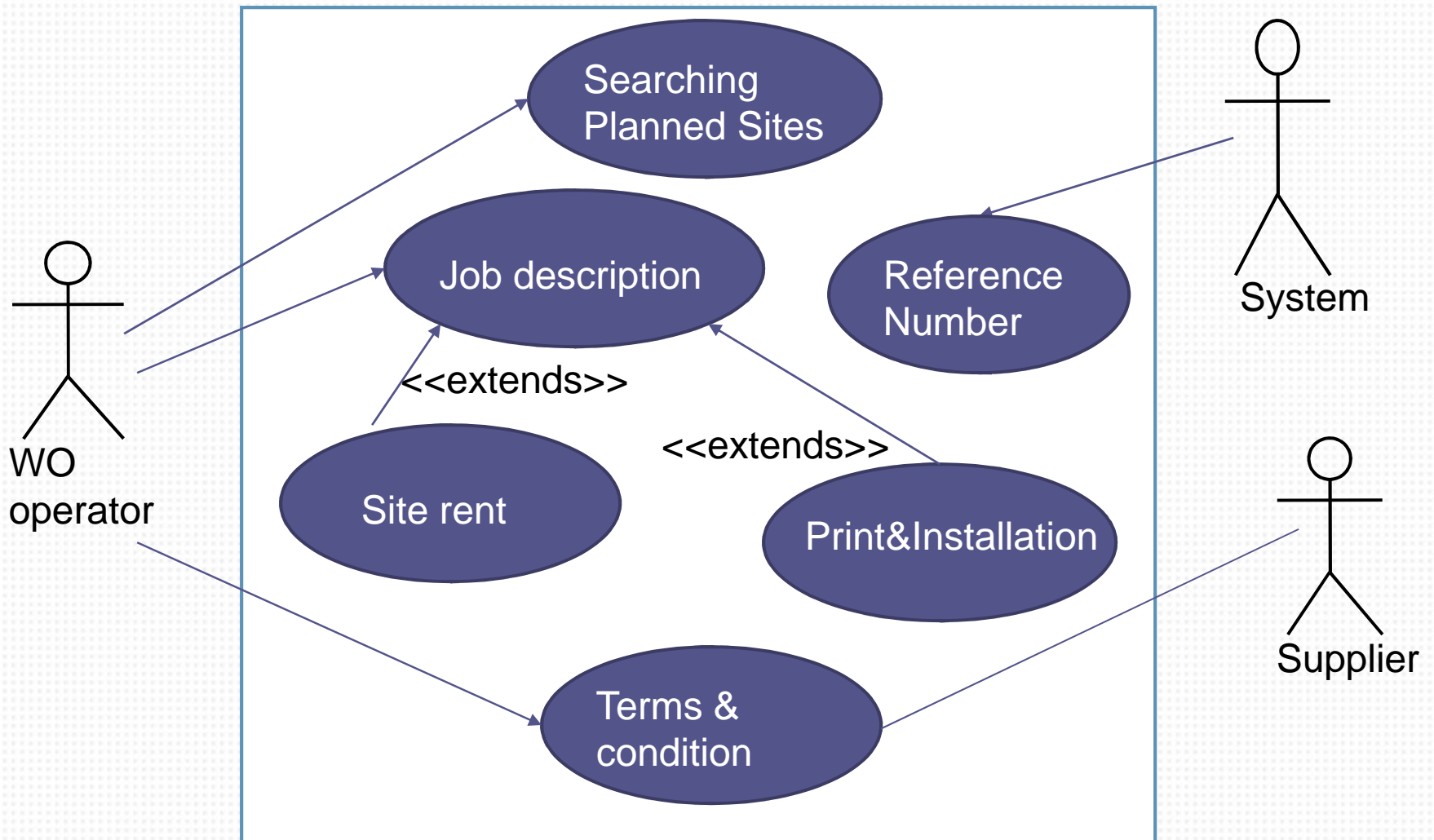# Use-Cases for Plan Revise, Approval Subsystem(Contd..)

Use-Cases Glossary: Work Order Subsystem

- Use Case of Work Order(WO) Generation:

Use-case name	Actors
Searching Planned Sites	Work Order operator
Job description	Work Order operator
Reference Number	System
Terms & condition	Work Order operator, Supplier

Use-Cases for Work Order(WO) Generation Subsystem
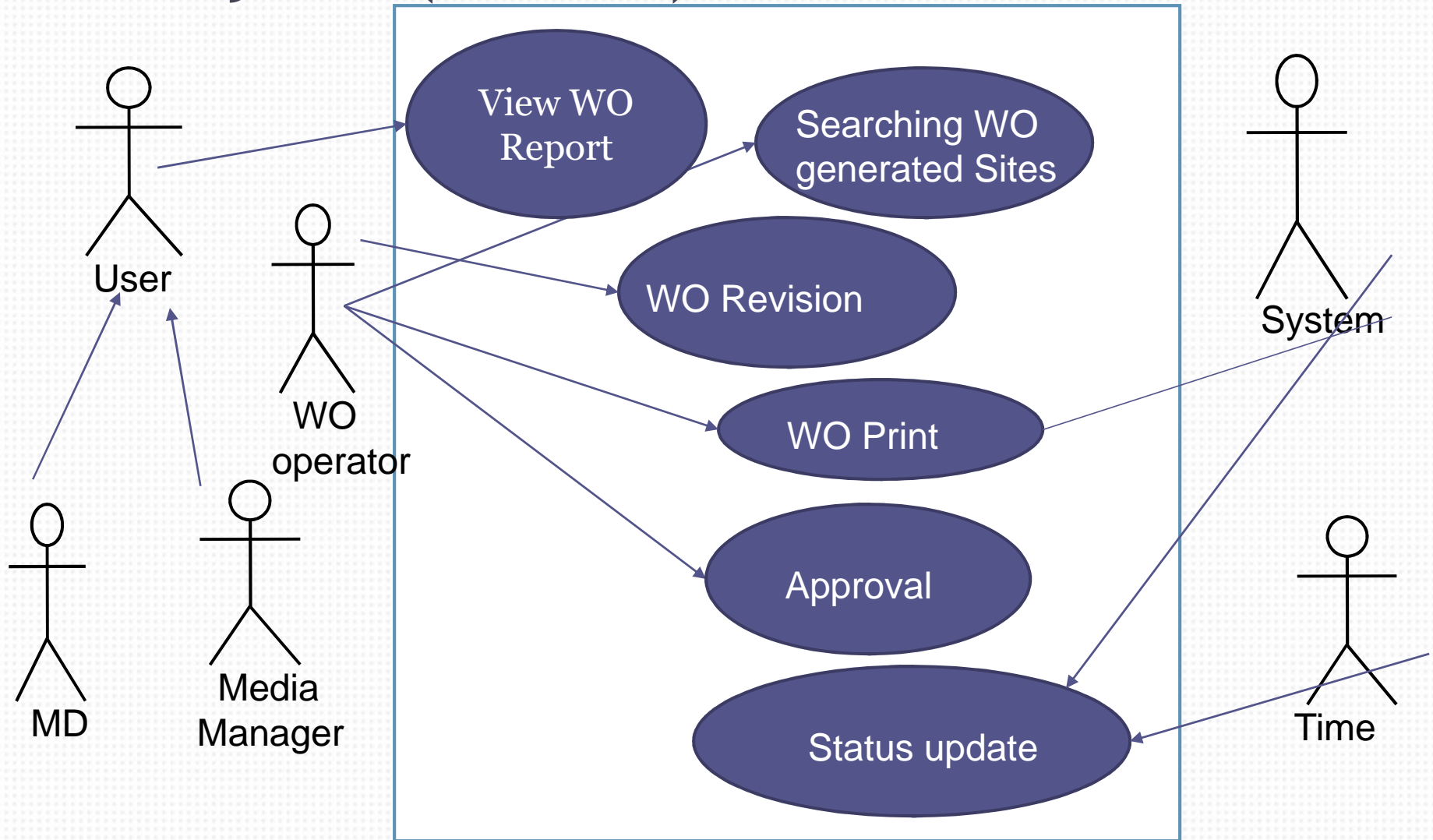
Use-Cases for WO Implementation Subsystem(cont)

- Use case of WO Revise, Approval:

Use-case Name	Actors
Searching WO generated Sites	Work Order operator
Work Order revision	Work Order operator
WO Print	Work Order operator, System
Approval	Work Order operator
Status Update	System, Time

Use-Cases for WO Revise, Approval Subsystem(Contd..)

Use-Cases Glossary: Pay Order Subsystem

- Use Case of Pay Order(PO) Generation:

Use-case name	Actors
Searching WO generated Sites	Pay Order Operator
Pay order number	System
Issue Date	Pay Order Operator
Installment	Pay Order Operator, Supplier

Use-Cases for Pay Order(PO) Generation Subsystem
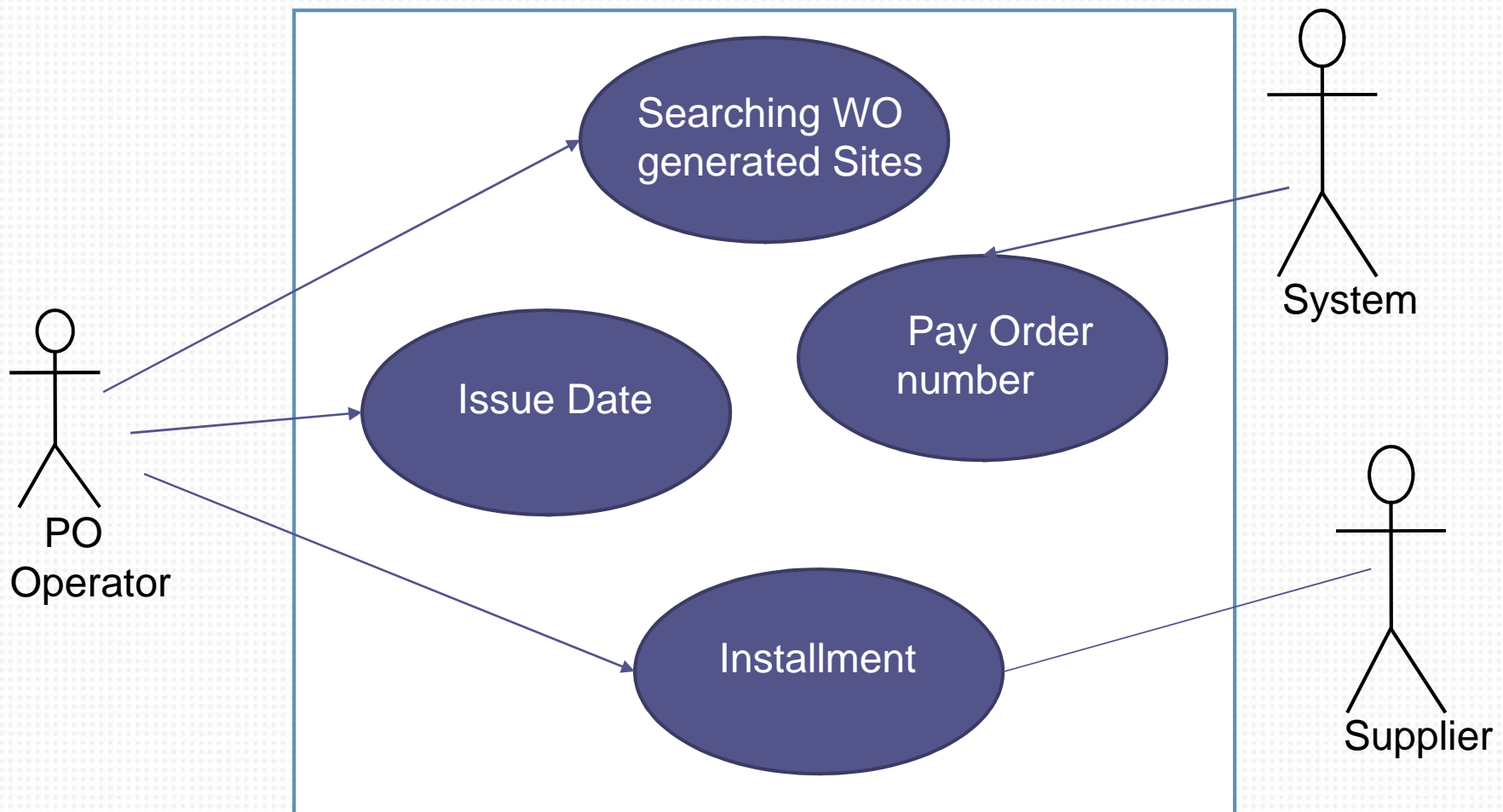
Use-Cases Glossary: PO Implementation Subsystem

- Use Case of PO revise, Approve:

Use case Name	Actors
Searching PO generated Sites	PO operator, System
Pay Order revision	PO operator
WO Print	PO operator, System
Approval	PO operator

Use-Cases for PO Revise, Approval Subsystem(Contd..)
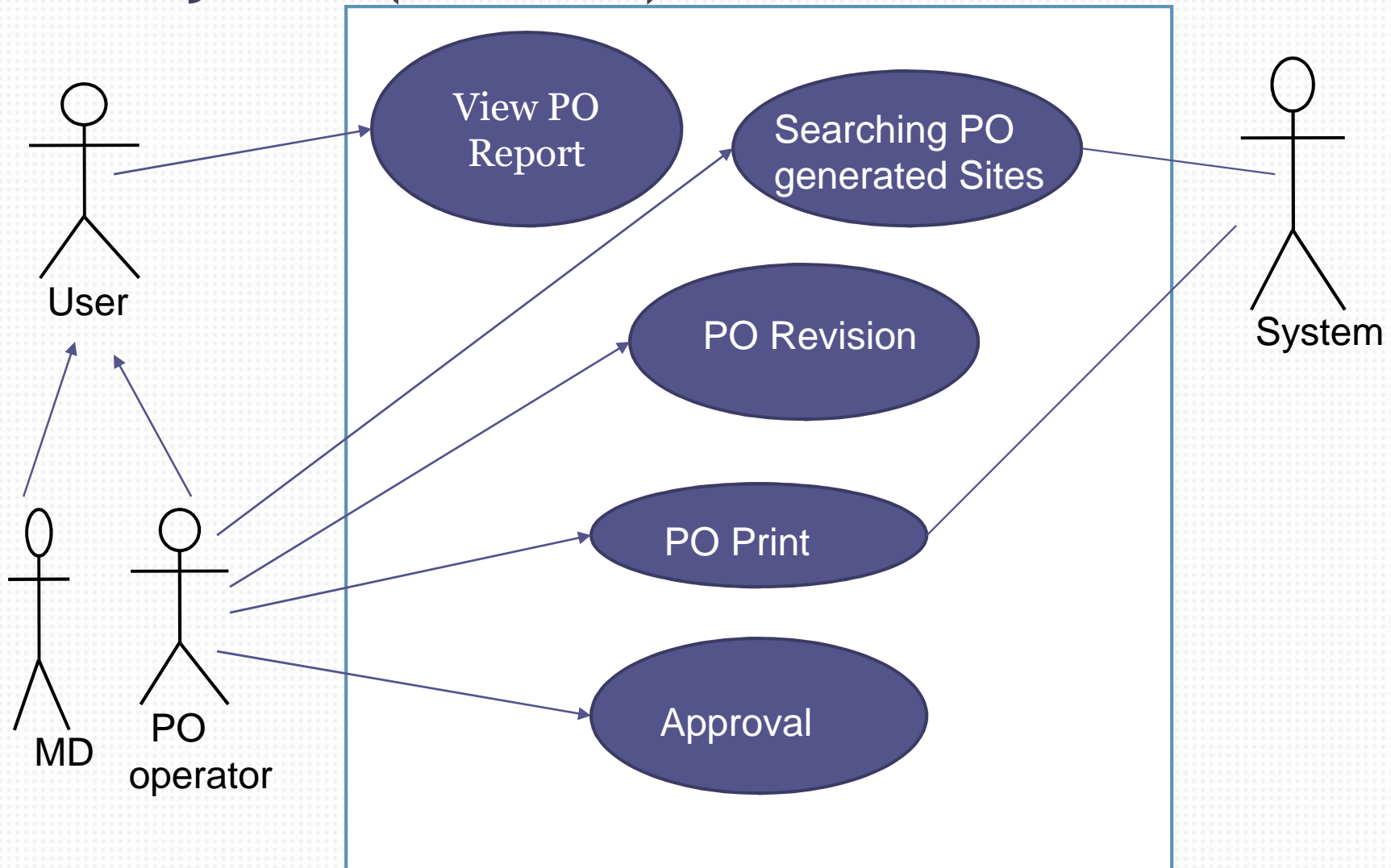
Use-Cases Glossary: Key Point Information

- Use Case of Key Point:

Use-case name	Actors
Key Point Identification	System, Entry operator
Net cost calculation	Entry operator
Site Picture Management	Entry operator
Report	Media manager,MD

Use-Cases for Key Point Information
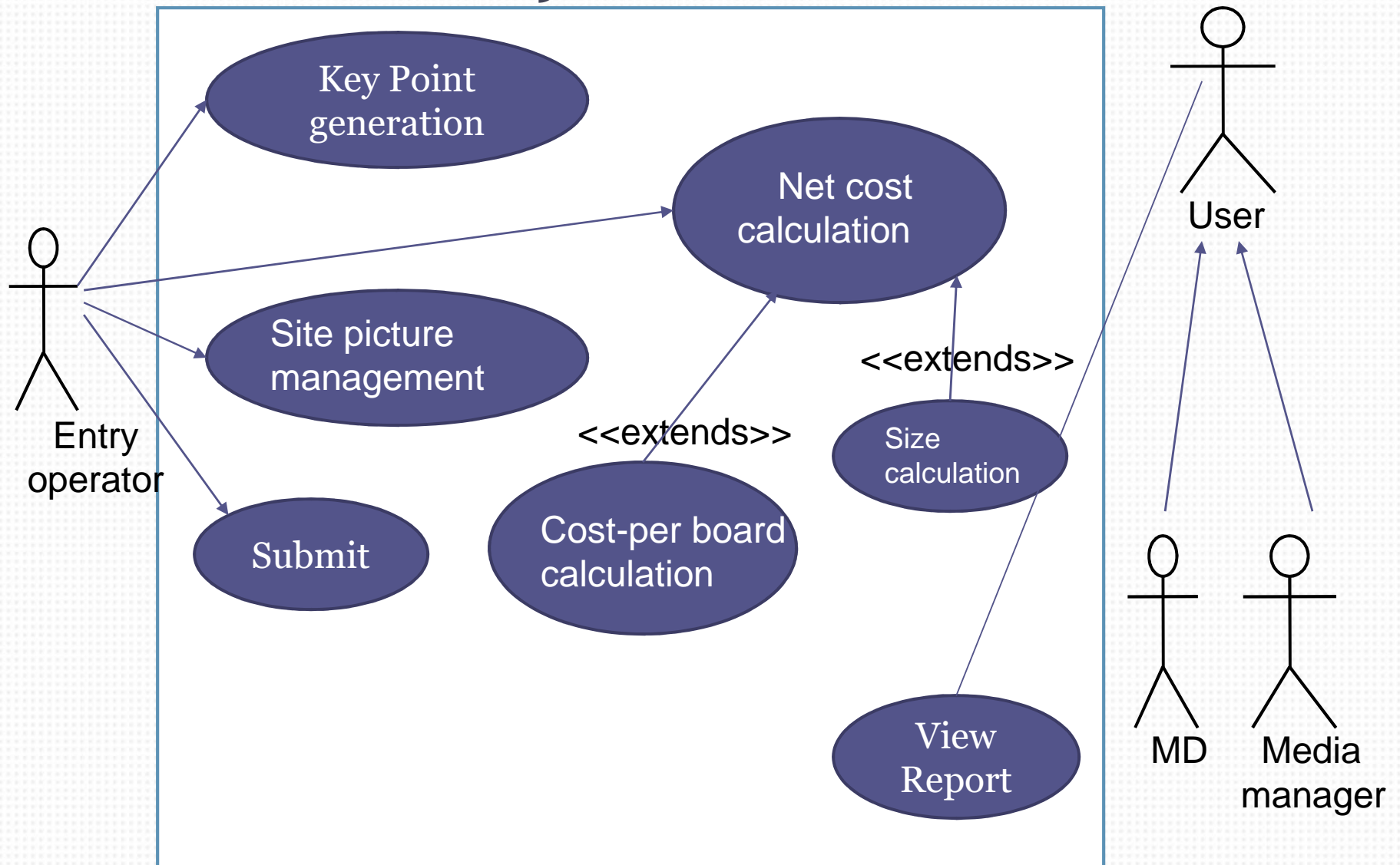
Use-Cases Glossary: Radio Station & Program Schedule

Use Case Name	Actors
Radio station information entry	Radio entry operator
Radio schedule management	Radio entry operator
Category distribution of Radio Program	Radio entry operator

Use-Case for Radio Station & Program Schedule
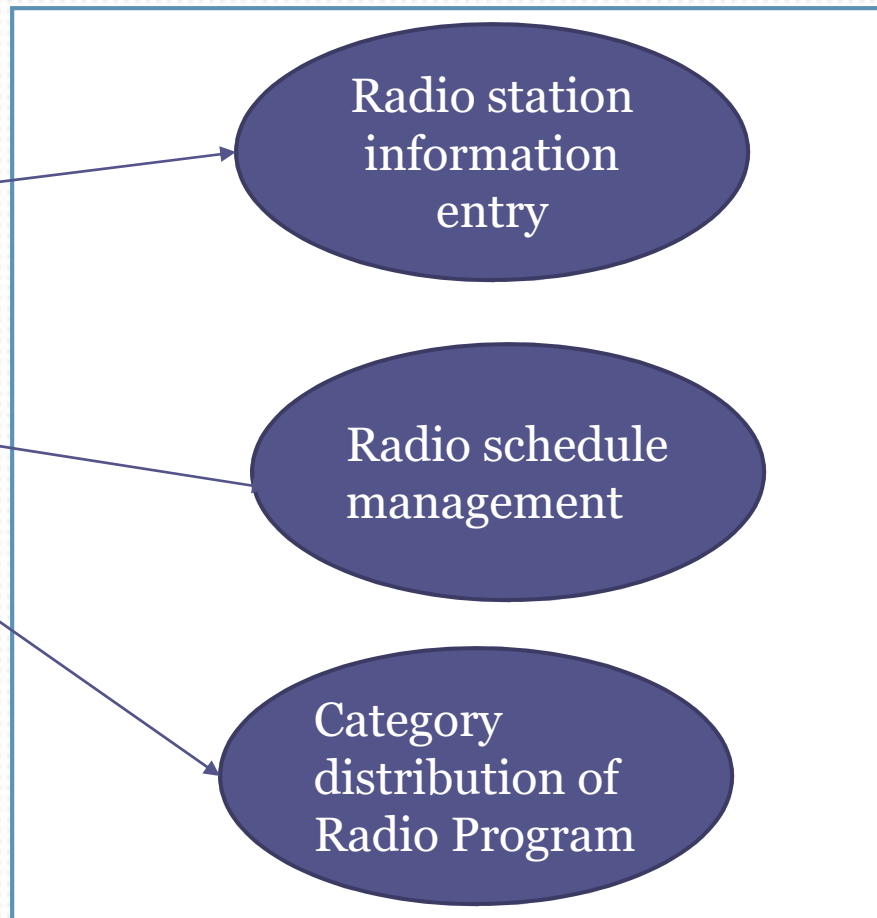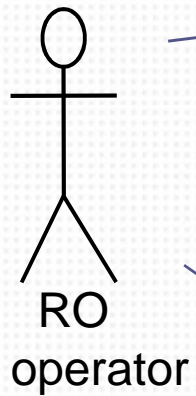
Use-Cases Glossary: Plan Generation(Radio) Subsystem:

Use Case Name	
Category Specification	Plan generation operator
Cost calculation	Plan generation operator
Verification code	System
Approval	Client

Use-Case for Plan Generation(Radio)
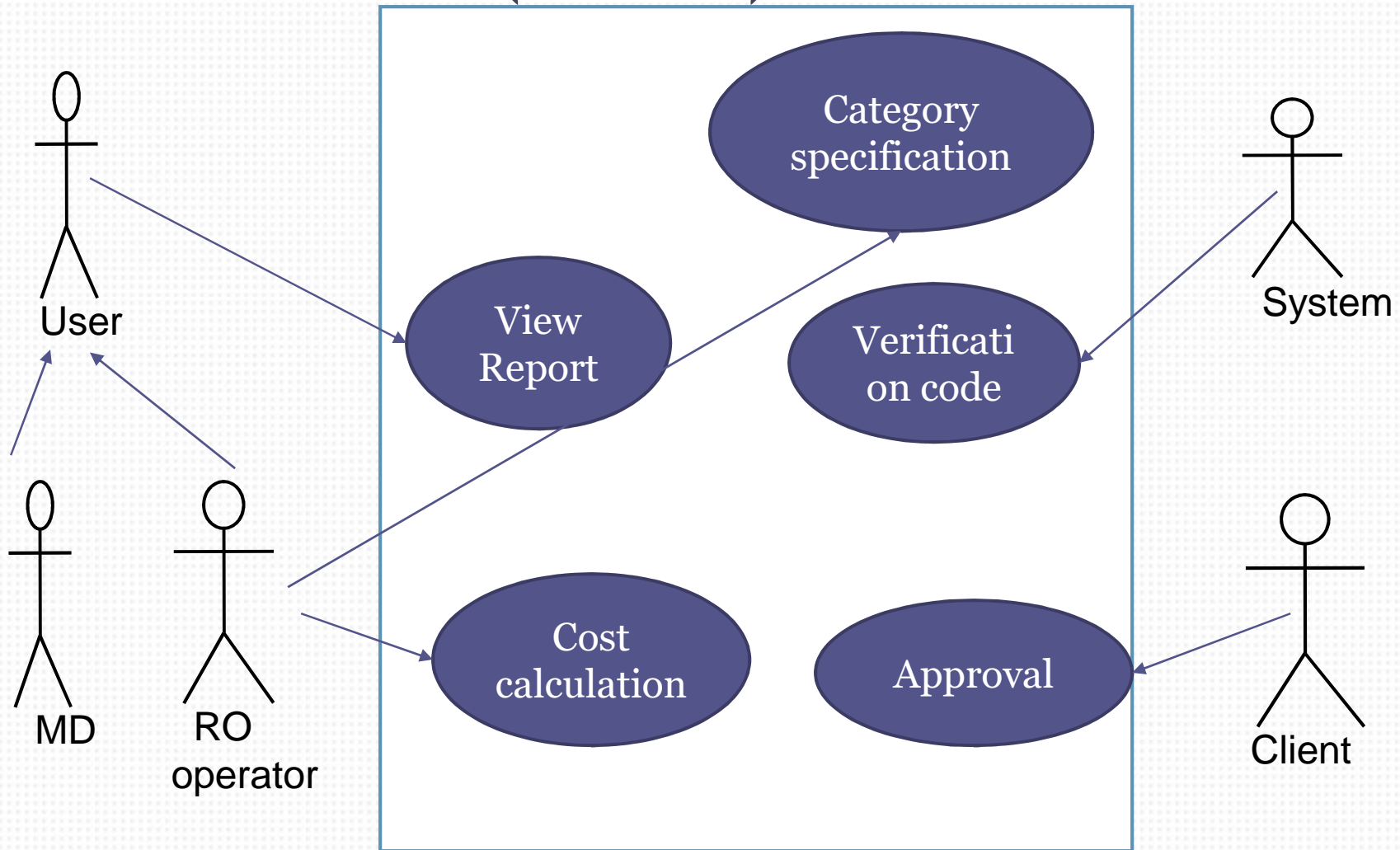
Dependency diagram for Information related use cases:
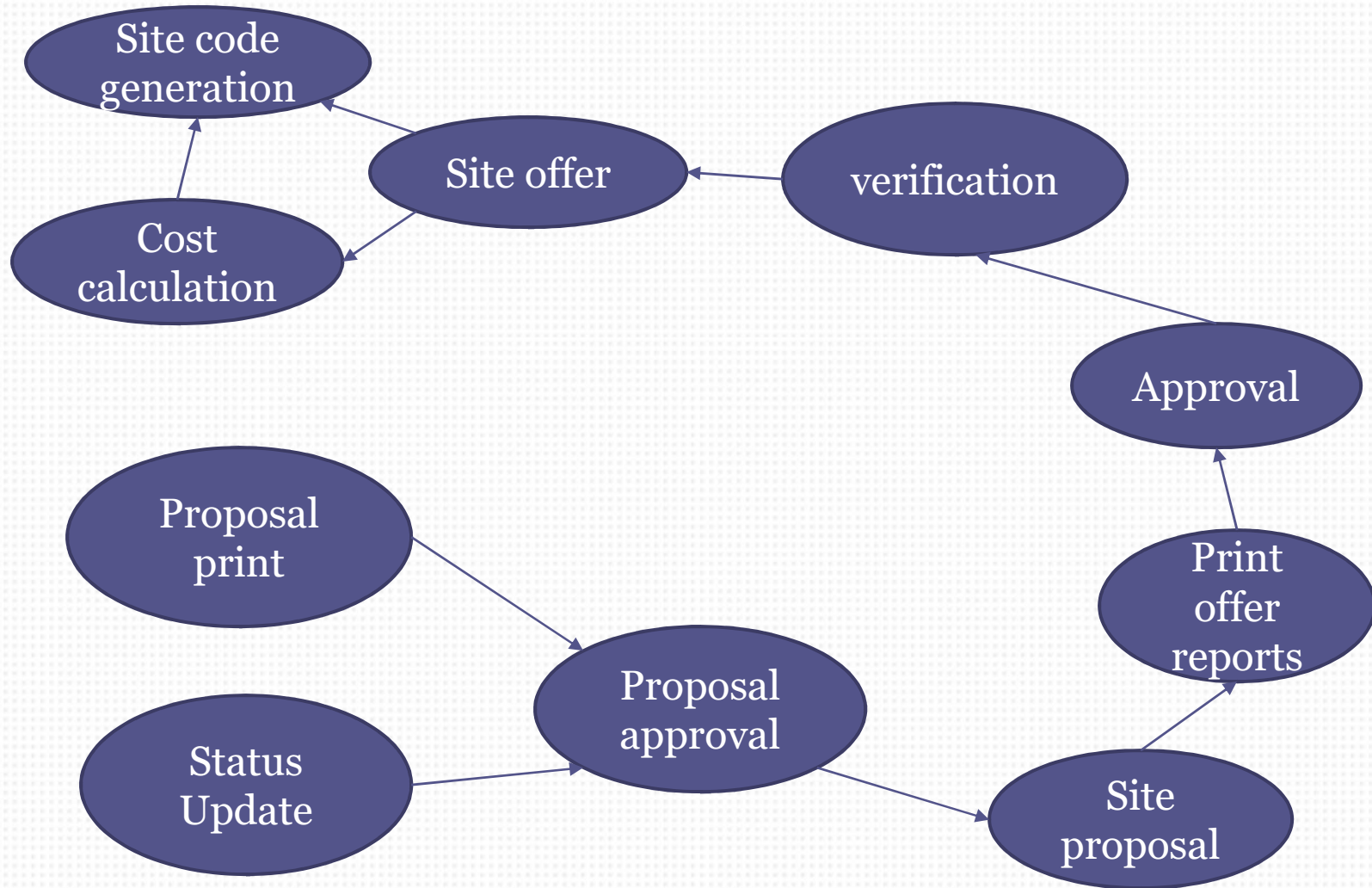
Dependency diagram for Implementation related use cases:

Use case Narrative for Supplier Offer:

Use Case Name	Supplier Offer Entry	Use Case Type Business Requirement
Use Case Id	UC_1	
Priority	High	
Primary Business Actor	Board, Bus, LED entry operators	
Other Participating Actors	Supplier	
Other Interested Stakeholders	•Proposal Operator – Wants organized site entry and accurate costing information. •Media Manager-Interested in Supplier Offer Report •MD- Interested in observing current available offers	

Use case Narrative for Supplier Offer:

Description	This use case describes the steps to enter a offer from supplier. The offer is first verified and attached with a specific site code. All kinds of information of the site is given and the accurate costing is computed. On completion , pictures of a site is copied to a specific directory and the whole record is inserted in the database. Also, a report is available for viewing the condition of the site. The site is attached with available status.	
Precondition	The supplier must be valid.	
Trigger	The use case is initiated when a new offer is submited.	
Typical Course of events	Actor Action	System Response
	Step 1: The Site entry operator Selects site type, specific type, area, district.	**Step 2:** Based on the information of Step 1 a site code is auto generated which will be used to uniquely identify the site later.

Use case Narrative for Supplier Offer:

Typical Course of events	Actor Action	System Response
	Step 3: For Boards Size_horizontal, size_vertiocal and dimension,For Bus routing information ,branded size and For LED total screening time will be given	**Step 4:** Total size will be computed
	Step 5: Contact Period and Costing information will be given.	**Step 6:** Total cost will be computed using total size,cost per unit and contact period.
	Step 7: Site specific picture will be given and Insert record operation will be requested.	**Step 8:** The picture name will be updated, all kinds of data validation will be done and if the form is validated then it the system will perform a insert operation .

Use case Narrative for Supplier Offer:

Alternate Courses	Actor Action	System Response
		Alt-Step 8: The entry operator has not provided all the information necessary to process the insert operation. The operator is notified of the discrepancy and prompted for resubmit.
Post conditions	The offer from supplier is inserted and picture is copied to the specified directory.	
Business Rules	• Total Size Calculation : sizeh*sizev*dimension. •Net Cost Calculation : cost per board*number of boards* contact period.	
Conclusion	The use case concludes when the entry operator gets a confirmation message from the system.	

Use case Narrative for Site Proposal

Use Case Name	Site Proposal	Use Case Type Business Requirement
Use Case Id	UC_2	
Priority	High	
Primary Business Actor	Site Proposal Operators	
Other Participating Actors	Client	
Other Interested Stakeholders	•Plan Operator- Interested in booked sites generated from proposal approval. •Media Manager-Interested in Proposal Reports, Negotiation cost.	

Use case Narrative for Site Proposal

Description	This use case describes the steps to propose a site to a specific client . This use case also handles that whether a site is offered to multiple client or not. Operator first search for available sites and then proposes a site to a client for a specific contact period. If the client approves the proposal , the status of the site will be updated from proposed to booked. On completion, sites are ready for plan and pictures of proposed sites will be copied to a specific directory.	
Precondition	The site must have available status before proposed.	
Trigger	The use case is initiated when a new proposal is created approved.	
Typical Course of events	Actor Action	System Response
	Step 1: The Proposal operator looks for available sites by giving some parameter like area,district,sitecode,type, specific type.	**Step 2:** Based on the information of Step 1 system shows a list of available sites.

Use case Narrative for Site Proposal

Typical Course of events	Actor Action	System Response
	Step 3: Operator selects desired sites from the list and attach client, proposal period and submit the proposal.	**Step 4:**System performs validation and then perform insert operation. The status of the site will be updated to proposed and pictures are copied to a specific directory
	Step 5: After proposed sites, operator search proposed sites by giving parameters like client.	**Step 6:** System shows the list of proposed sites and prints proposal reports.
	Step 7: Operator send reports to clients for approval and after approval sites are ready for plan.	

Use case Narrative for Site Proposal

Alternate Courses	**Alt-Step 3:**If the proposal operator propose a site that has already been proposed system generates a notification to operator.
Post conditions	After approval sites are ready for plan and proposal reports are available for management.
Business Rules	• Multiple sites may be proposed to clients. • After approval status must be changed from proposed to booked.
Conclusion	The use case concludes when the proposal operator gets the confirmation message of approval from clients.

Use case Narrative for Plan Generation

Use Case Name	Plan Generation	Use Case Type Business Requirement
Use Case Id	UC_3	
Priority	High	
Primary Business Actor	Plan Generator Operators	
Other Participating Actors	Client, Brand.	
Other Interested Stakeholders	•Work Order Operator- Interested in those sites generated from plan generation for work order. •Media Manager-Interested in Plan Reports, job description, brand and campaign.	

Use case Narrative for Plan Generation

Description	Plan generation is the first step of implementation. This use case describes the steps generate a plan for a specific site. Only booked sites from site proposal module are the input of this section. Operator first search the booked sites by client and attach a specific brand and campaign name with the plan. After generated a plan, it sends to client for approval and status is updated in module.	
Precondition	The site must have booked status before plan.	
Trigger	The use case is initiated when sites are approved by client and status is changed.	
Typical Course of events	Actor Action	System Response
	Step 1: Here operator search the booked sites by client name.	**Step 2:** Based on the information of Step 1 system shows a list of booked sites.

Use case Narrative for Plan Generation

Typical Course of events	Actor Action	System Response
	Step 3: Operator selects sites for plan and if the client has a specific brand then choose a brand and campaign name. Job description is added here. SiteRent, Print, Installation, Print and Installation are job descriptions	**Step 4**:System verify the informations and if the print and Installation is selected then cost at Dhaka and outside cost shows here from supplier information.
	Step 5: Other informations like period code,gl code,cc code is added with the plan. An estimate number is given to the plan. This uniquely identifies the plan .	**Step 6:** System perform insert operation. The status of the site will be updated.
	Step 7:after plan generation operator search the planned sites for revision.	**Step 8**:System intact the original plan and performs an insert operation with changed informations.

Use case Narrative for Plan Generation

Typical Course of events	Actor Action	System Response
	Step 9:Operator prints the planned reports and send to client for approval.	
Alternate Courses	**Alt-Step 5:** For each plan estimate number is unique. If operator generates a plan without estimate number then system prompts the operator for a unique estimate number.	
Post conditions	Plan is ready for Work Order generation.	
Business Rules	• After plan generated status should be changed form booked to IsPlanGenerated. •For print and installation Dhaka and outside cost show here.	
Conclusion	The use case concludes when the plan operator gets a approval from client.	

Use case Narrative for Work Order Generation

Use Case Name	Work Order Generation	Use Case Type Business Requirement
Use Case Id	UC_4	
Priority	High	
Primary Business Actor	Work Order Operators	
Other Participating Actors	Supplier.	
Other Interested Stakeholders	•Pay Order Operator- Wait for approved plan so that he can start Work Order. •Media Manager-Interested in Work Order generation and reports.	

Use case Narrative for Work Order Generation

Description	Work order is generated for a plan. Work order is sent to supplier for starting the task. Every work order has a specific reference number and it is auto generated. After generating work order operator can revise this work order with changed information. Operator then print reports and send to supplier.	
Precondition	The site must be approved by client before work order.	
Trigger	After plan generation, the use case is initiated	
Typical Course of events	Actor Action	System Response
	Step 1: WO operator looks for planned sites.	**Step 2:** Based on the information of Step 1 system shows a list of planned sites.

Use case Narrative for Work Order Generation

Typical Course of events	Actor Action	System Response
	Step 3: Operator selects a site that has a specific brand and client for work order,	**Step 4:**System verify the informations and a reference number is auto generated for work order.
		Step 5: System perform store the information to database.
	Step 6:After Work order generation, operator search the sites for revision.	**Step 7**:System perform revision.

Use case Narrative for Work Order Generation

Typical Course of events	Actor Action	System Response
	Step 8:Operator prints the Work Order reports and send to supplier.	
Alternate Courses	**Alt-Step 3**: Work order reference number is generated based on supplier. So supplier must be selected before Work order generation.	
Post conditions	Work Order is ready for Pay Order generation.	
Business Rules	• After Work Order generation status should be changed from IsPlanGenerated to IsWorkOrderGenerated. •Term & condition should be used for specific supplier.	
Conclusion	The use case concludes when the operator sends the report to supplier.	

Use case Narrative for Pay Order Generation

Use Case Name	Pay Order Generation	Use Case Type Business Requirement
Use Case Id	UC_5	
Priority	High	
Primary Business Actor	Pay Order Operators	
Other Participating Actors	Supplier and other Workers.	
Other Interested Stakeholders	•Media Manager-Interested in Pay Order reports and Installments..	

Use case Narrative for Pay Order Generation

Description	Pay order generation is the payment schedule for supplier. Payment schedule is divided into five installment. Payment schedule is created after a week of work order. In the mean time manager collect the payable cost from client.	
Precondition	Task should be started and reports are available for supplier.	
Trigger	The use case is initiated when task starts.	
Typical Course of events	Actor Action	System Response
	Step 1: WO operator looks for specific Work Order.	**Step 2:** Based on the information of Step 1 system shows a list of Work Orders.

Use case Narrative for Pay Order Generation

Typical Course of events	Actor Action	System Response
		Step 4:System performs validation and generates Pay Order with a specific issue date.
	Step 3: For a specific Work Order, operator divides payment schedule into five installment.	
		Step 5: System performs revision and print reports same as plan and Work Order.

Use case Narrative for Pay Order Generation

Alternate Courses	Actor Action	System Response
	Alt-Step 3: Pay order reference number is generated based on supplier. So supplier must be selected before Work order generation.	
Post conditions	Pay order is ready for payment schedule.	
Business Rules	• Installments depend on amount and percentage. •Term & condition should be used for specific supplier.	
Conclusion	The use case concludes when the payment schedule has completed.	

THANK YOU