Course: DPR Preparation
Day 2

Implementation Strategy and Governance Structures
Agenda

• Relevance of Implementation Strategy for DPR
• Single Vendor vs. Multiple Vendors
• Big Bang vs. Phased Implementation
• Typical Implementation Challenges
• Governance Mechanism
Relevance of Implementation Strategy for DPR

• The pace of software implementation is a key determinant of project costing
  – Cost of implementation would vary if the project is to be implemented in 3 years as against 5 years

• Team size taken into consideration for costing will directly impact the project costing

• Business model adopted influences the cost items to be budgeted
  – (e.g.) In case of PPP model, transaction revenues earned from the project will pay for many expense categories

• Decision makers are keen to know the duration by which the project will get implemented
  – Timeline section in DPR should indicate the duration by which usage of the envisaged system will be effected
An Illustration

Key underlying assumptions

• Software developed in-house

• Bulk of the software development will be completed in 18 months
  – This explains reduction in the development team from the 4th Semester and onwards

• PMU established in-house

• User departments to be brought into the system in a phased manner over a period of 3 years
  – This explains gradual increase in size of PMU team

• System will be used by district administration from the 3rd semester and onwards
  – Hand-holding support increases from 2 to 9 members from then
## An Illustration: Sample Sizing

### Software Development Unit Requirements

<table>
<thead>
<tr>
<th>S.no.</th>
<th>Designation</th>
<th>Staffing Requirements Semester-Wise</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>First</td>
</tr>
<tr>
<td>1</td>
<td>Architect</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Team Lead</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Module Lead / Senior Developer</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Developer</td>
<td>8</td>
</tr>
<tr>
<td>5</td>
<td>Testing leads</td>
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<tr>
<td>6</td>
<td>Testers</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>Document writers</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>Application and OS administrators</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>Database administrators</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>17</strong></td>
</tr>
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</table>

### PMU Costing

<table>
<thead>
<tr>
<th>S.no.</th>
<th>Designation</th>
<th>Staffing Requirements Semester-Wise</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>First</td>
</tr>
<tr>
<td>1</td>
<td>Head of PMU</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Technical &amp; Operations Director</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Business Analysts</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>User Administrator</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Training Specialist</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>Trainer</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>Hand-holding Specialist</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>Help desk staff</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>Accounts and admin Specialist</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>Accountant</td>
<td>1</td>
</tr>
<tr>
<td>11</td>
<td>Grievance Handling Specialist</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>Bonus to Govt. staff</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>
Single Vendor vs. Multiple Vendors

- Decision on whether to go for a single vendor or multiple vendors is impacted by:
  - Pressure on the government agency to show results within short time span
  - Availability of capable bidders in the market to address varied set of requirements (e.g. software development, training, call center, data center management etc.)
  - In-house capabilities of the government agency
  - Amenability of the requirements to be consolidated into the work of a single vendor
  - e.g. whether or not to combine the selection of 3rd party audit agency within the broader scope of a single vendor selected
Single Vendor vs. Multiple Vendors

Advantages of going with a Single Vendor

• Acts as a single point of contact for the Government
• One single agency responsible for meeting the prescribed service levels
• Procurement of multiple cost items required for service delivery will be done by the single vendor selected
• Contract administration is simpler
  − Consolidated bill submission and bill processing
• Government need not get into the workings of service delivery (e.g.)
  − Vendor has to enhance the hardware in case of performance problems
• Coordination amongst the different service providers is the vendors responsibility (e.g.)
  − Making the help desk and software development team work together
  − Coordination between the software development team and database service provider
Single Vendor vs. Multiple Vendors

Dis-advantages of going with a Single Vendor

- It takes significant time and effort to detail the entire project’s requirements.
- Selecting one single vendor is tantamount to putting all eggs in one basket.
  - The entire project will be at risk when an unqualified System Integrator (SI) or if the SI quotes low rates and is found incapable of project delivery.
- The single vendor will tend to take time to set-up and operationalize the project.
- RFP preparation, vendor selection and project implementation tends to happen sequentially causing the project delivery to get delayed.
- It will take some time before usage of the system beings (i.e.) to see fruits of the envisaged project.
- Project owners need to have patience and should do as much due diligence as possible upfront.
Single Vendor vs. Multiple Vendors

Advantages of going with multiple vendors

• Requirements for a part of the project can be drafted relatively fast and vendor for that part of the project can selected on priority
  – Thus, Government can show results relatively faster when compared with going with a single vendor

• Direct engagement of specialist agencies

• Government has direct contract with agencies delivering the services

• Risk of project implementation diversified amongst multiple vendors

• Government can express its preferences for the many works, goods and services procured
  – In case of a single vendor, it is for the vendor to decide the best combination required to meet the service levels
Single Vendor vs. Multiple Vendors

Dis-advantages of going with multiple vendors

- Government needs to have strong in-house capabilities to liaison and coordinate the work undertaken by many different vendors
- Lack of coordination amongst vendors may increase the overall cost of the project
- “It is not my mistake” is a difficult response to resolve
  - Sub-standard service delivery may result due to this
- Government agency may have to issue multiple change orders to make the vendors work together in an optimized manner
  - Reasoning the issuance of change orders is a challenge
- Transitioned in and transitioned out of multiple vendors will be a major challenge
- Administration of multiple contracts (i.e.) SLA’s, payments will increase the administrative burden on Government
Single Vendor vs. Multiple Vendors

Examples

• Single Vendor
  − Typical System Integration deals such as MCA 21, e-Passport and e-Procurement implementation, GoK

• Multiple vendor
  − Initial implementation by UIDAI is a classical example. Separate tenders were issued for:
    • Software development
    • Call center
    • Data center
    • Servers and storage
    • Training etc.
  − Now, the Managed Service Provider (MSP) has to transition from all the different vendors
Typical Implementation Challenges

- Contract signing tends to be long drawn process
- Implementation agency tends to take time to identify and deploy people on-site to start the project implementation
- PMU structure often tends to be weak and in formative stages early in the project
- Getting the teams in place and to get going on the actual work takes time
- Consultancy documents tend to be at a high level
  - Implementation requires much more detailed documentation
Typical Implementation Challenges

• Resistance from end users is to be expected
• Requirements tend to flow in thick and fast post go-live of the system
  – Based on implementation experiences
• System will invariably throw errors in early stages of the project
  – Especially so in case of custom developed software
• Decision making by the various committees constituted by the Government
  – Project implementation will be governed by these decisions taken
Project Implementation Approach – Various Options

- Big Bang
- Phased
- Parallel
- Pilot
The four most widely discussed implementation models are:

- **Big Bang** – The e-Governance project is launched across the locations for all the functions at the same time. All users move to the new system on a given date.

- **Phased rollout** - Changeover occurs in phases over an extended period of time. Users move onto new system in a phased manner.

- **Parallel adoption** - Both the legacy and new system run at the same time. Users learn the new system while working on the old.

- **Pilot and rollout** – A small (sample) part of the project is implemented for testing purposes before the complete project rollout is done.
Big Bang vs. Phased Implementation

- **Big Bang**
  - Rolling out the system amongst all users at once
  - Not the most suited method to handle initial teething problems
  - May be adopted for small scale implementation
  - Not recommended for large scale implementations

- **Phased Implementation**
  - Better to go for a pilot implementation with a limited set of users
  - Make necessary corrections based on Go-live experiences
  - Gradually roll out the system across the entire spectrum
  - Conduct training and conduct change management activities through out the project
Governance Mechanisms
Governance Mechanism

- Key stakeholders in the project are engaged in decision making through a committee.
- Large projects tend to have multiple committees.
- Roles and responsibilities of the committees have to be drafted early during project conceptualization.
- Typically, there is one overarching committee such as the Steering Committee / Empowered Committee / High powered committee:
  - For taking strategic decisions
  - Such committees typically have Secretaries and Principal Secretaries as members.
- There could be one or more committees beneath the Steering Committee such as Project Implementation Committee, Working Group etc.
  - For taking tactical and operational decisions
  - Such committees typically have domain experts as its members.
Governance Mechanism

- A Project Management Unit (PMU) is typically constituted to manage the project on a day to day basis
  - The PMU identifies the decision areas, prepares agenda notes, explains the subjects in detail, documents the decisions taken
  - PMU does (among other things)
    - Preparation of Request for Proposal (RFP) for vendor selection
    - Processes payments due to the vendors and
    - SLA administration and other aspects of contract management
    - Organizes training of end users
    - Publicity and awareness creation
Governance Mechanism – Sample

Empowered Committee

Central Society

Governing Board

- Strategic Management Group
- Process & Domain Group
- Technology Group
- Finance & Administration

Central Project Management Unit (CPMU)
Governance Structure

Leadership
- Joint Secretary (PD)

Steering Committee

Direction & Coordination
- Deputy Secretary

Teams
- Government Officers Group
- CPMU

Roles & Responsibility
- Financial aspect
- Coordination with
- Implementation agency
- State Government
- DIT / NIC
- Inter-party Issue Resolution
- Administrative functions

Roles & Responsibility
- Project Manager
- Monitoring & Evaluation Expert
- Solution Architect
- IT Infrastructure Expert
- Change Management Expert
- Procurement Expert

Program Management

Steering Committee

Empowered Committee

Specialized Training for e-Governance Programme
Empowered Committee Sample

- Secretary (Dept of F&PD)
- AS & FA, (Dept of F&PD)
- Joint Secretary, (Dept of IT, MCIT)
- NISG Representative
- Principal Adviser, Planning Commission
- Food Secretary (1 of 4 pilot states – rotation basis)
- Joint Secretary (Policy) (Dept of F&PD)
- Joint Secretary (BP & PD) (Dept of F&PD)
Steering Committee Sample

Joint Secretary (BP, PD)

Director Finance (Dept of F&PD)

Director PD, (Dept of F&PD)

Food Secretary (All four states)

Executive Director, FCI (In-charge of IIFSM)

Sr. Director (Technical), NIC

NISG Representative

Director (Policy)
End of Session