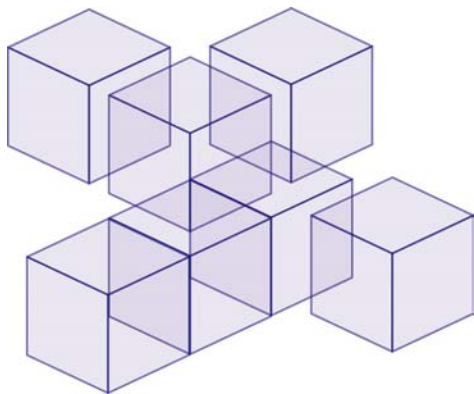




Technology Rooms for Business



END2END

Tendering Strategies for Technology Room Builds

Delivering
Successful
Technology Rooms

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1 Introduction

This is one of the END2END guides. Each Guide is designed to give a first level practical outline of a particular aspect of designing, building or operating Technology Rooms. It is hoped that they provide the reader with “food for thought” before they embark upon their particular chosen path.

This particular guide takes a brief look at the possible approaches for the tendering process, reviewing the basic tender structure and the different options for inclusion of design work within the tender document. The correct approach here should ensure that:

- ❑ There is a good definition of what is physically required and that this has been based on the requirements of the business
- ❑ Each supplier has a “level playing field” on which to respond
- ❑ There is enough scope to allow suppliers to bring any expertise and more importantly any optimum pricing (due to their own partnerships) to the table
- ❑ The most suitable supplier is chosen for the work
- ❑ That design costs are appropriate for the size of the Technology Room. In fact, the scale, size and price of the design effort is largely down to the approach adopted in the selection of the tender type

2 Tender Structure

The basic tender has a number of distinct sections that are required:

- ❑ **The Administration section** – This describes the mechanisms for response for companies bidding for the work. i.e. the form of the response, mandatory structures for elements of that response (e.g. useful to get all pricing to be laid out exactly the same way in order to make the process of reviewing and marking the responses easier), any deadlines for delivery of the response, arrangements for site surveys, information required on companies responding etc. etc.
- ❑ **The Design/Requirements section** – This lays out what needs to be incorporated into the response in terms of deliverables (covered in detail in next section)
- ❑ **The Contractual Section** – This outlines any terms that will be in force for the contract (e.g. project deadlines, mandatory deliverables such as documentation, general terms and conditions etc.) and any responsibilities that the supplier will have to adhere to (e.g. Health and Safety Policies)
- ❑ **The Form of Tender** – A binding statement to be signed by the responder to signify that they are bidding for the work and have supplied all information required and are in agreement with the terms laid out in the tender

3 Design/Requirements Section

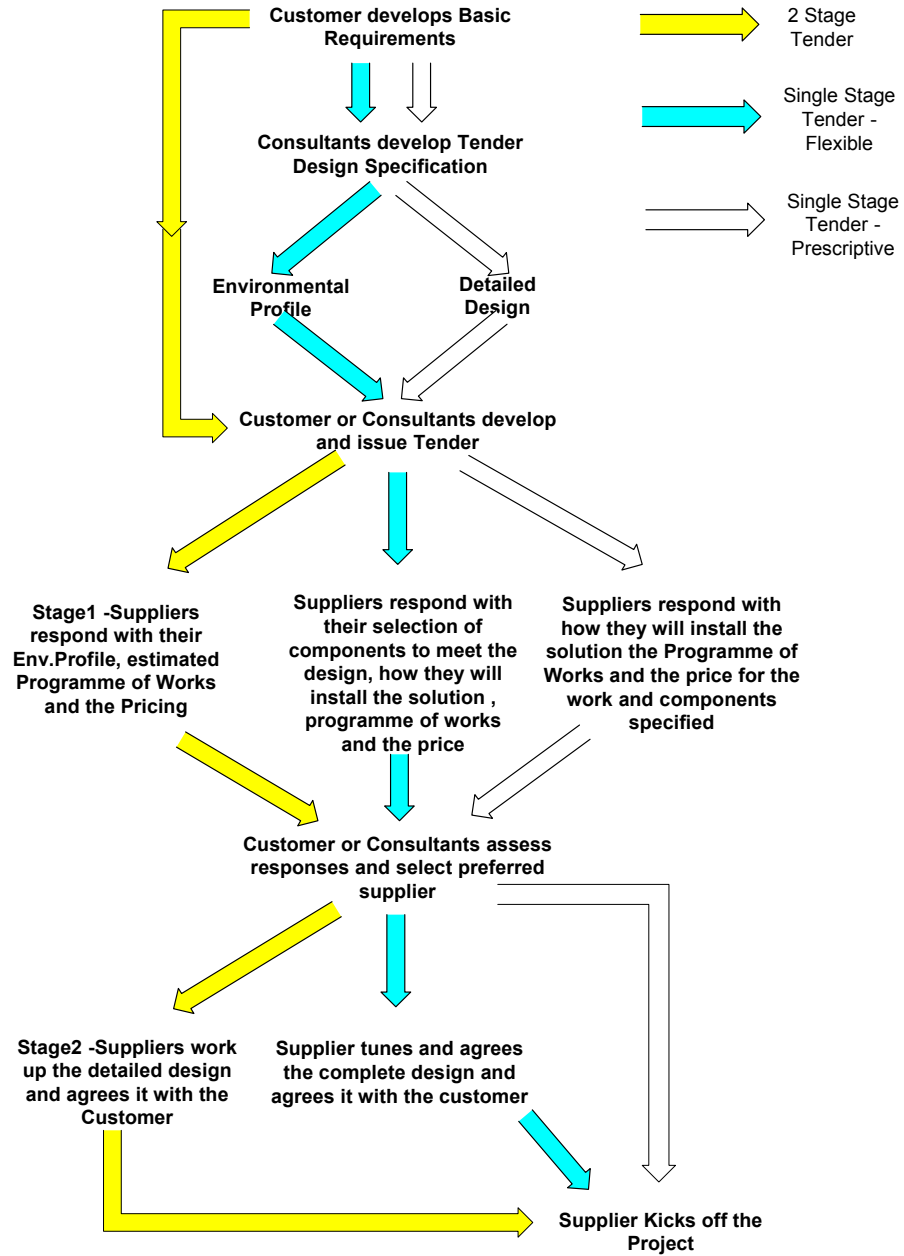
There are 3 major approaches to tenders that are generally adopted in construction projects of this type. Each requires differing amounts of up-front initial design effort. The following describes the possible tender approaches.

- 2 Stage tenders
- Single Stage tenders – prescriptive
- Single Stage tenders – flexible

They each have their benefits, dependent upon the exact nature of the situation. The table below defines each and their respective advantages/disadvantages.

Tender Type	Description	Advantages/ Disadvantages
2 Stage Tender	<ul style="list-style-type: none"> <input type="checkbox"/> The tender contains the business and operational requirements of the Computer Room <input type="checkbox"/> Stage 1 is used to find a preferred supplier with expertise in the design and construction of Computer Rooms <input type="checkbox"/> The tender requires the supplier to provide a profile of the room and components to be used <input type="checkbox"/> Stage 2 – the preferred supplier provides a final design that will meet the needs 	<ul style="list-style-type: none"> <input type="checkbox"/> Simple tender development <input type="checkbox"/> Relies on selected supplier to be competent in both construction and IT <input type="checkbox"/> The expertise of the supplier ensures that the design can be refined during the project, allowing for subtle or necessary changes to be noticed and implemented <input type="checkbox"/> Allows the supplier to bring their full expertise and experience to developing both a good solution and a good price
Single Stage Tender - prescriptive	<ul style="list-style-type: none"> <input type="checkbox"/> The tender contains a full and in-depth design to meet the defined requirements <input type="checkbox"/> The Design specifies all aspects of the build including the selection of all manufacturer equipment and components and full installation methods <input type="checkbox"/> Suppliers have to respond with how they would implement and construct based on that design – in reality they are defining a Programme of Works for delivery 	<ul style="list-style-type: none"> <input type="checkbox"/> Design work can be done up front before any exact suppliers are chosen <input type="checkbox"/> The prescriptive nature allows little room for joint discussion and consultation and therefore what gets delivered is exactly what' is in the tender (whether that is right or wrong). To avoid this, Design Consultants have to be retained to oversee the project <input type="checkbox"/> The cost of the upfront Design work can be costly, due to its detailed nature
Single Stage Tender - Flexible	<ul style="list-style-type: none"> <input type="checkbox"/> The tender contains a full requirements specification at a business and operational level. It contains a profile of the structure of the room and definitions for the functionality, type and standards of required components and their required integration <input type="checkbox"/> Suppliers have to respond with how they would implement and construct a solution to match those requirements, detailing their choice of manufacturers selected for the components and why 	<ul style="list-style-type: none"> <input type="checkbox"/> Definition of full requirements and a profile can be done up front before any exact suppliers are chosen, limiting the risk <input type="checkbox"/> The cost of the upfront Design work is reduced, without compromising the effectiveness of the definition <input type="checkbox"/> Suppliers can use their most cost-effective manufacturers, as long as components match the documented type and standard <input type="checkbox"/> Savings made in comparison with the prescriptive approach mean that there is generally budget to retain the outline designers to oversee the project

3.1 Tendering Process



3.2 Requirements/Design Document Definitions

In line with the type of Tender approach being adopted, there is a need to include within the particular tender, requirements/design information relative to that document. The following defines those documents against the tender types. As can be seen the amount of upfront work and cost increases the more prescriptive the type of tender.

Tender Types			Upfront Effort & Documentation required
2 Stage Tender	Single Stage Tender - Flexible	Single Stage Tender - Prescriptive	<input type="checkbox"/> Requirements Workshop and Definition
			<input type="checkbox"/> Environmental Survey
			<input type="checkbox"/> Environmental Profile
			<input type="checkbox"/> Detailed Design

3.3 Design Effort Details

Information Gathering/Documentation Details	
	Description
<ul style="list-style-type: none"> ▪ Requirements Workshop <ul style="list-style-type: none"> ▪ 1 day workshop reviewing all aspects including: <ul style="list-style-type: none"> ▪ Service Levels and availability analysis ▪ IT estate review ▪ Business Continuity requirements ▪ Operational processes ▪ Budget restraints ▪ Location restrictions ▪ Construction and verification of a Data Centre model to meet requirements ▪ Production of Requirements Definition Document 	
<ul style="list-style-type: none"> ▪ Environmental Survey <ul style="list-style-type: none"> ▪ Review of all environmental aspects of the existing facilities and proposed areas for development ▪ Production of Environmental Survey report 	
<ul style="list-style-type: none"> ▪ Environmental Profile <ul style="list-style-type: none"> ▪ Production of Environmental Fabric Profile, includes: <ul style="list-style-type: none"> ▪ Specification for all component types for each END2END layer ▪ Layout specifications for all END2END layers 	
<ul style="list-style-type: none"> ▪ Detailed Design <ul style="list-style-type: none"> ▪ Full specification and manufacturer selection for all components in the build ▪ Method statements and risk assessments for the installation 	

Tender Type - Summary Requirements	
Tender Type	Description
2 Stage Tender	<ul style="list-style-type: none"> ▪ Requirements Workshop ▪ Environmental Survey
Single Stage tender - Flexible	<ul style="list-style-type: none"> ▪ Requirements Workshop ▪ Environmental Survey ▪ Environmental Profile
Single Stage tender - Prescriptive	<ul style="list-style-type: none"> ▪ Requirements Workshop ▪ Environmental Survey ▪ Environmental Profile ▪ Detailed Design

3.4 **END2END Summary**

The 3 basic types of tender all have their own advantages and disadvantages.

In general, if a trusted “preferred” supplier is available, then it makes sense to adopt a 2 stage approach. However, companies that understand IT and M&E are rare and so the choice is limited.

A Single Stage flexible approach allows a design to be worked up, which provides an outline blueprint for the potential supplier whilst still allowing that supplier the flexibility to bring any special skills or deals into play.

The Single Stage Prescriptive approach is generally used on very large Data Centre builds or where organisations want to use in-house suppliers and are prepared to perform their own project management against the exact instructions provided.