Assignment 1

Assignment:	Assignment 1
Module:	MANT CP801
Submission:	To BLACKBOARD as a single compressed ZIP folder. All documents to be in PDF format. All listings to be in TXT format. BOMs and Wire lists in Excel format.

You are given a scenario and you need to design and build a solution based on the course material covered to date.

Briefing

Inishowen Solar Submarines (**solarsubmarines.com**) provide a wide range of popular submarine vehicles, all of which are solar powered. Market research has identified 44 countries worldwide where there have been no previous submarine sales, but the marketers are not sure why. They are currently expanding and opening offices in these countries. They expect competition to be light and they expect to capture the market without undue competition. Each local site will be configured in a similar manner.

You have just been hired as a system engineer and a table of data has been circulated letting you know where you are to be relocated (see Network Plan 2022). You are the only technician on site, so you need to look after everything! But you have many colleagues around the world as support if you need it; it is expected that there will be much dialogue on the discussion forum.

Scenario

At each site internationally, we installed two host servers and used virtualization to build a simple, cheap local solution. We also built the local physical network, and this should now all be transparent to you. There is no WAN connectivity, you must configure the site as a free-standing, independent domain.

With the two hosts in place, in this assignment, we need to build the core infrastructure. We own the domain **solarsubmarines.com**, each site will prepend its location name to the domain name for its local domain. If there were a site in Chad, it would be **chad.solarsubmarines.com** for example. Each site is independent and does not connect to the Internet. We will need local domain controllers, two for reliability. They will also need file servers which need to be configured for reliability.

We need a network diagram with a VLAN plan and IPv4 address assignments. We need to specify the local services we need, how they will be implemented, where they will be found. And how will security/disaster recovery/business continuity work?

Deliverables

Filename	Description	Rubric / Marking Scheme
Summary.pdf	An executive summary. This is a brief description of what you have done, comprehensible to non-technical people. This is primarily intended for business staff. Minimum 300 words.	5
VLANs.pdf	A list of VLANs and IP assignments, in EXCEL which corresponds with the Logical diagram.	3
LogicalDiagram.pdf	A logical diagram of the network and services at the local site.	5
Licenses.xls	A costed bill of materials (BOM) for the software licenses needed for site. Justify your choices.	2
VMs.pdf	A description of the configuration of the VMs you are providing, explaining how the system will be highly available. This should describe	5
Security.pdf	A description of the security aspects of the configuration. How will you do BC/DR?	5