Tough Trailers - Strategic Plan Proposal

Student details

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Student signature and Date

David Cruwys, 27nd Oct, 2021

Tough Trailers Scenario

You have been recently appointed as a Project Manager in the Development Team with ROI.

The Head of the ROI Development Team, Terrence Stewart, has asked you to start working in collaboration with Tough Trailers to define the problems with their strategic plan and present viable solutions.

While you have access to various business documents, your primary role is to consider the existing ICT infrastructure and its inadequacies to meet current business requirements of Tough Trailers including the impact of these inadequacies.

Please note the ROI Development Team is also working on another project with Tough Trailers that relates to website development for the client. At this stage you are not part of the website development project team. However, you have been advised to ensure that any probable impact of website development on the business is included in your work.

Document Repository

- Tough Trailers Scenario
- Tough Trailers Strategic Plan
- Existing ICT Resources
- ICT Expense Summary

Extra

- ROI_Org_chart
- ROI_Report_template
- ROI_Scenario

Part 2: Evaluate current strategic plan

Cover Page

Document Version

Version	Type	Date	Detail
1.1	Create	17 Nov, 2021	Create Skelton for Report
1.2	Review	18 Nov, 2021	Add in TOC
1.3	Update	20 Nov, 2021	Add to background information
1.4	Update	20 Nov, 2021	Add Current Strategic Plan
1.5	Update	20 Nov, 2021	Add Current Business Requirement
1.6	Update	21 Nov, 2021	Add Current ICT System

Document Sign-off

Stakeholder	Role	Sign off
Bob Sedgewick	Managing Director	☐
David Cruwys	ROI Project Manager	☐
Terrence Stewart	ROI Development Manager	☐
James Mansour	Chief Finance Officer	☐
Jenny Smith	Office Manager	☐
Wolfgang Wiss	Head of Manufacturing	☐
Ellen Chu	HR Manager	☐
Ellen Chu	IT Manager	☐
Angelo Cassati	Sales & Mktg Manager	☐

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Introduction

Background information

Company Overview

Tough Trailers (formerly Tough Steel) was founded in 2000 as an architectural metal fabricator, they diversified into small box trailer manufacturing in 2007. By 2010, the trailer business had grown so much that they made the decision to become a full-time trailer manufacturer and re-branded as "Tough Trailers".

Tough Trailers produces both standard and customized box trailers.

The factory and Head office is in Newcastle with showrooms in Sydney, Melbourne and Brisbane.

With 1500 customers and Turnover of $10M, Tough Trailers has seen sales increase by 40% each year in the last two years.

Problems

The company internal systems and computer systems have worked well in the past, but with the increase in sales, they realize that they may not be able to cope with continued expansion.

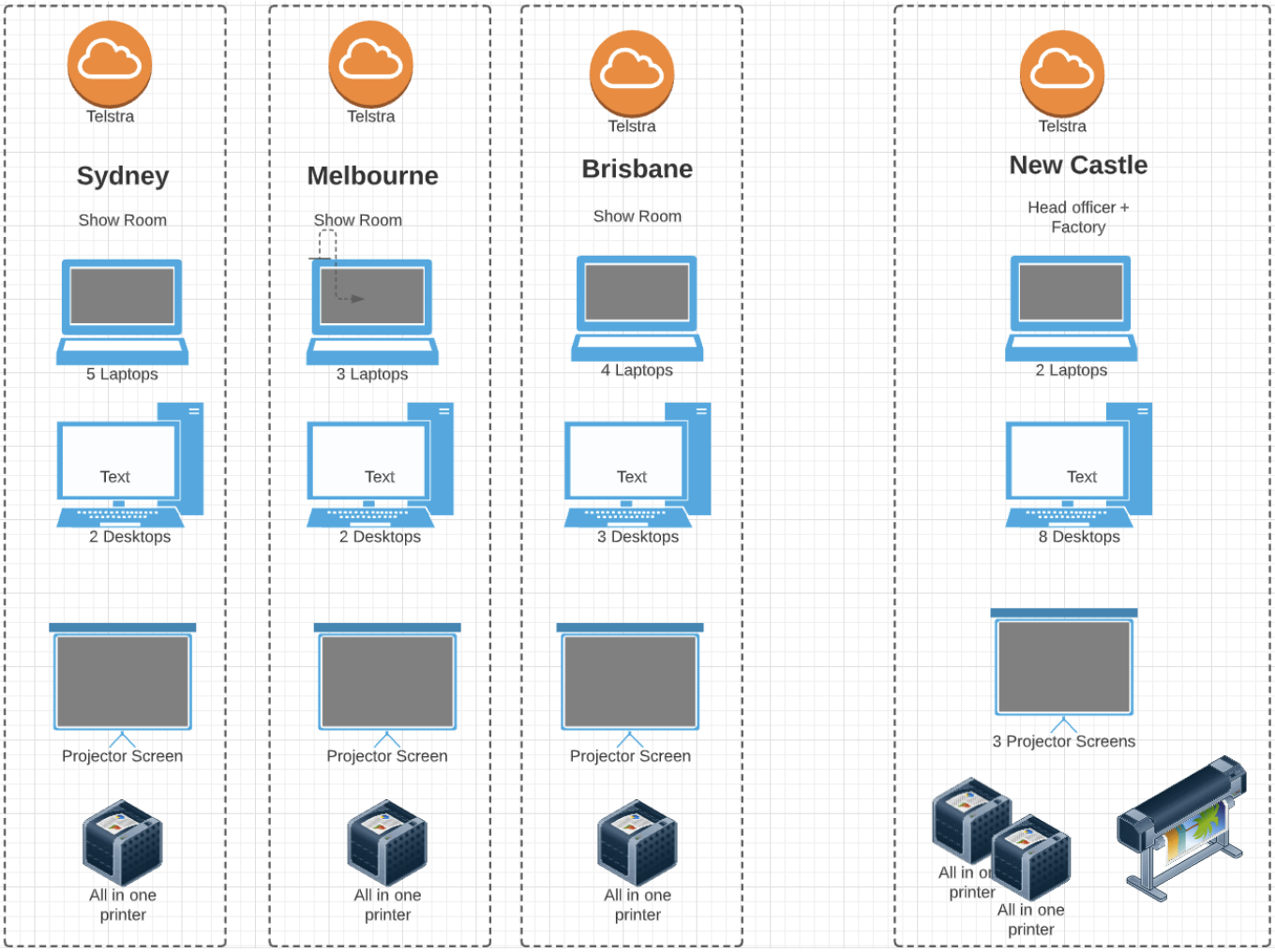
Why we need to change

We need to upgrade ICT for the entire company so that we can expand quickly:

- On board new staff
- take advantage of new cloud applications in all areas of our business
    - Sales
    - Marketing
    - Training
    - Product Design
    - Product Creation
- Adapt to the changing world of eCommerce
- Create integrations with our dealerships, suppliers and other external systems

- Security
- Contingency against issues1 like COVID which can be completed in two stages.

Current ICT network and hardware



Options Analysis

Technology	URL (s)	Research Findings
Virtualisation	Virtual 7 ways	Virtualization will help tough trailers to optimize their physical space. As servers can be divided into multiple Virtual Machines (VM), with each VM being used by individual staff members, the number of physical servers and desktops reduces considerably, and operating system / application updates can be managed quickly
Cloud computing	Cloud For Franchises	Granular Scalability, Unified Communication System, Tighter security, Off Site Management, Cost savings
Browser based operating systems, chromebook	Great and Not so Great	Pro: Cheap, Very Mobile, Web Access, Con: Rarely integrates well with desktop applications like AutoCAD

Suitable options

From the options analysis we should look further into the Virtualisation, Cloud computing combination.

Cloud computing is great for pay only for what you use, no need to invest in expensive implementations (upfront purchase, expensive contractors).

This solution will open us up to scaling the business, is remote friendly and managed for us.

Providers:

- AWS
- Google Cloud
- Azure
- Other proprietary SAAS applications

Virtualisation is great for offloading heaving processing onto powerful servers while also providing desktop like environments that can scale with staffing as required and our staff can keep using their custom design software products.

The addition of VPN's would allow staff to work remotely on any device whilst having control over security and access.

Options costings

Option	Description
Cloud - Applications	An application such as Office 360 or SalesForce will have have a per seat (employee) cost of around $5-30 per month for simple applications, these cost grow or decline based on usage
Cloud - Servers	Server instances are tailored to a specific requirement, SQL Server hosting, Desktop Virtualisation, VPN, DNS etc. Costs can range from a couple of dollars per month to hundreds of dollars based on usage tiers, e.g high powered database may be $200+ per month
Server Virtualisation	On premise virtualisation can be incredibly powerful for scaling our commputing instances but it has an initial cost for servers $5-15K per server for a business like tough trailers, plus an installation cost, 1-3K and monthly management, $500+

Options comparison

Cloud Applications

Pros:

Can solve certain problems such as (Sales/Marketing CRM, EDM), Communication (Email, Slack), Office (Google Docs/Office 360) with great power and affordability.

Cons:

- May not provide custom control or integrations

- Staff may be given Office 360, but use Google Docs at home and are not happy with the change

Cloud Servers

Pros:

- Affordable and relatively easy to provision and scale for different types of servers.

Cons:

- Latency can be an issue as servers are not on premise.
- Requires consultants to manage properly.
- May not always integrate nicely with on premise ICT, e.g. Digital factory, Jills Commodore 64

Server Virtualisation

From a cost point of view, this sits between our current LAN based ICT and previously mentioned Cloud Servers

Pros:

Compared to current LAN

- Scalable
- Central management
- Easier to secure
- Easier to upgrade apps and operating systems

Cons

- Initial setup can be Costly
- Consultants or in-house experts are needed
- People might be used to there existing software applications and these may not be available

Preferred option

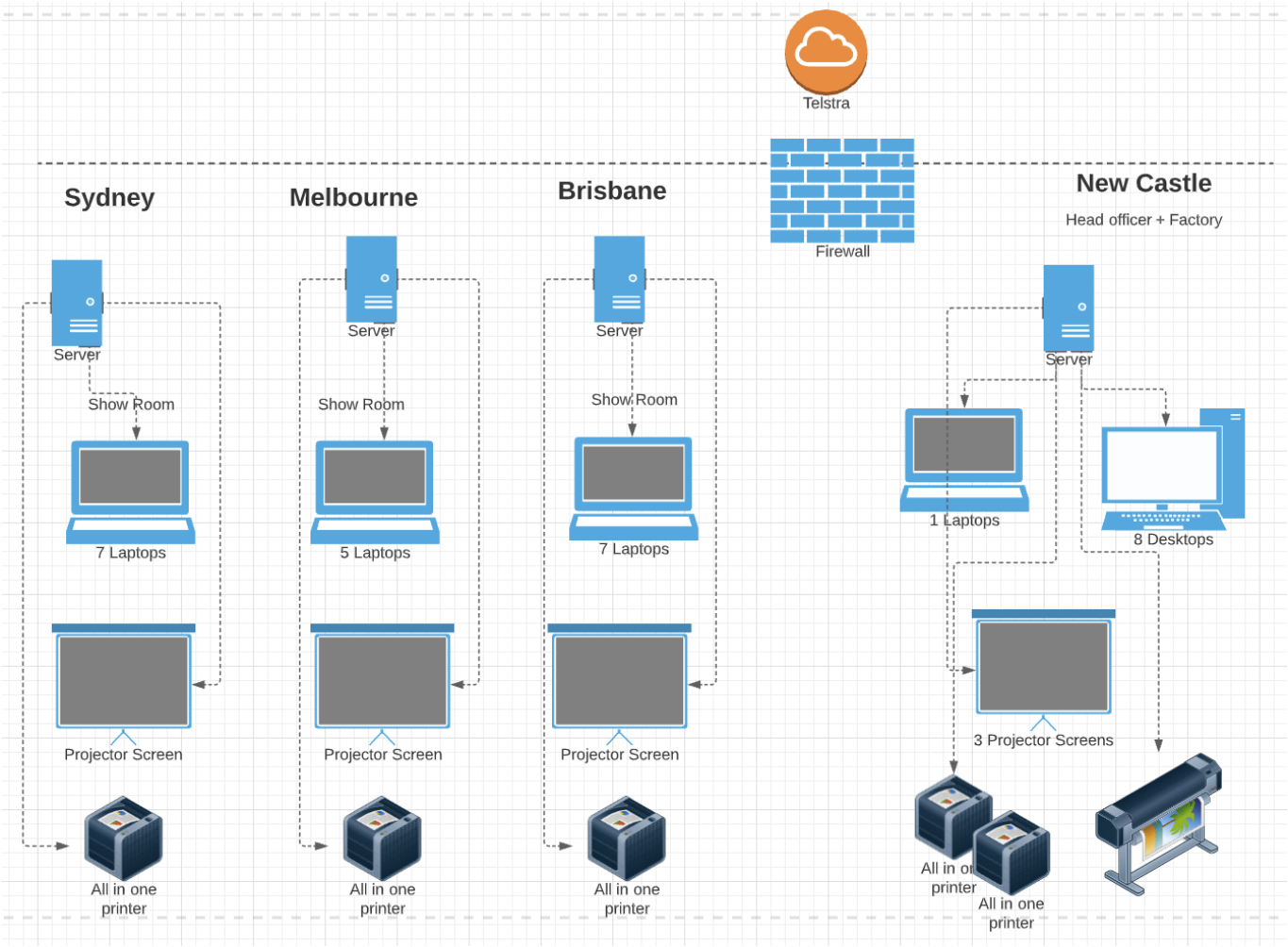
The preferred option is to go with virtualisation to solve the issue off our current LANs (costly, location based, non-scalable, non-secure)

This option should be used for the internal network, printers, desktop applications and virtual desktops.

Where possible, this should be paired with specific Cloud Applications.

Note: if we go with cloud applications from big providers, then we should try to use apps from their stack where possible. E.g. MS App Stack, Google App Stack, Amazon App Stack

Using networking diagram drawing software, prepare a network diagram that demonstrates the preferred option and include this with your answer. You do not need to prepare a networking diagram for all identified options.



Impact of proposed change

Change management and training will need be implement as people will be moving from devices and setups that they are comfortable with to new ways of operating.

Some tools / applications are going to be a lot better for the team and for collaboration, but people are going to notice certain features are missing of hidden from their view and this will create frustration.

There will be an initial loss of productivity as new systems are implemented and old systems are deprecated.

Action Plan

Timeline

> Provide a rough estimation of the duration of the activity.

Strategic Objective

Upgrading the existing ICT infrastructure for improved efficiency and consistent business practices across all sites

Per seat costs marked with pa are expressed as per-annum amounts and are based on 30 staff when dealing with office staff and 16 when dealing with factory workers

Activity	Description / Standard	Costs (Approx.)	Timeline (Approx.)
1. Asset Repurpose Audit	Audit our current ITC assets and record future status of (`Repurpose`, `Sell`, `Dispose`		1 day
2. HR - Contractor	Find a contractor who specializes in virtualisation with cloud integration	600/day x 20 days $12,000	1 Month
3. Procurement	Purchase 4 Servers	4x$5,000, $20000	3 days
3. Procurement	Purchase 4 sets of the following for new Networks (Firewall with VPN, Wifi Router and Repeaters, Edge Routers, Cabling, Patch Panel, Modem, Switch, Cabling)	4x$5,000, $20000	12 days
4. Backup	Create backup of existing data on each computer in each section. Data security must be ensured to industry standards and best practices.	No additional cost	1 week
5. Wiring	Wiring, Ducting, minor fitout	No additional cost	4 days
6. Cloud Apps	Windows Server	4 x $1200 $6750 total	1 day
6. Cloud Apps	Windows Licences - 45 seats	45 x $150 $6750 total	1 day
6. Cloud Apps	Office 360 - 30 seats	30 x $99 $3000 pa	1 day
6. Cloud Apps	Sales Force	13 x $300 $3900 pa	1 days
6. Cloud Apps	Adobe Creative Cloud	3 x $528 $1584 pa	1 days
6. Cloud Apps	AutoDesk AutoCAD	4 x $1575 $6300 pa	1 days
7. App Training	General staff training for Office 360, Sales Force, Windows	$1200	2 days
7. App Training	Designers on new creative cloud	$1200	2 days

Activity	Description / Standard	Costs (Approx.)	Timeline (Approx.)
7. App Training	Sales team on sales force	$1200	2 days
7. App Training	Finance team on Zero	$600	1 day
8. Data Import	Import Data into appropriate cloud applications where needed	No additional cost	1 day

Category	Amount
Contractor	$12,000
Equipment Purchase	$40000
Cloud Applications (per/annum)	$28284
Training	$4200
Total	**$84484**