Wholesale Services Proposal
Fax Services

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PREFACE

This document is intended as an initial proposal outlining the benefits of using TNZ Group Limited as an outsourced fax provider that specializes in fax technology.

The document begins by evaluating the primary requirements of most fax consumers, and moves into examining the current types of fax delivery employed by Small, Medium and Large enterprises today (your customers).
Selecting the correct fax delivery method, provided by the correct fax provider, is essential to ensure a trouble-free faxing experience for both businesses and their proprietaries. Poor selection can result in increased support issues, loss of reputation, business, and cost.

We then move on to discuss the exact solution proposed, from how an end-user would operate the solution, to how the solution is best integrated into your existing product suite.

Finally, we end with a pricing guide.

Ultimately this document aims to assist in guiding you towards an outsourced fax solution to keep fax, a technology perceived as aging, relevant in the current digital age.

ABOUT TNZ GROUP LIMITED

TNZ Group Limited was established in 2001 as an advanced Fax and SMS solutions provider, tailoring solutions to high end corporate clients. As the company grew and infrastructure was in place, TNZ opened its doors to a wide range of customers.

Following TNZ Group's merging with Faxware International Limited (founded in 1991), a leading fax technology developer, TNZ Group's technology suite and development abilities has pushed it into the top tier of fax solutions suppliers worldwide.

TNZ Group's Fax service is one of the most advanced and flexible fax systems in the world. Building the technology from the ground up, TNZ Group can work with your business to build a solution that suits you.

In the world of the smart device and smart consumer, businesses have a commitment to operate in real time. Often, it is legacy fax solutions and processes that slow this process down. Working with TNZ Group to build an Internet-based fax solution and eliminating the need for paper-based faxing can help businesses become more efficient, productive and customer focused; transforming organisations into efficient, real-time enterprises.

Key concepts are integrating fax into existing workflow and CRM concepts, flexibility to access fax solutions at any time, innovation, cost control with enhanced reporting, business continuity with redundant outsourced cloud-based fax solutions and fax archiving, and improved customer service.

Your staff, partners and technical team will have access to additional features, simplified management and accessibility controls, allowing them to spend more time on jobs of importance. The result, an overall less-stressful and less time-consuming experience.

COMMON EMAIL-TO-FAX METHODOLOGY

SIMPLE FAX MACHINES

Traditionally, businesses from small to large have used facsimile machines attached to copper lines. Operated manually by inserting paper and dialling the destination fax number, these are inexpensive and simple implement.

The main issues today with simple fax machines are:

1. Fax-to-Email is not supported, meaning physical paper is produced by the machine
2. A physical copper telephone line is often required
3. Keeping an auditable trail of faxes sent and received can be a challenge
4. Only one fax can be received simultaneously (model dependent)

While many organisations will continue to operate simple fax machines alongside a Fax-to-Email solution, these are quickly being phased out in favour of a fully paperless system (often via a scan-to-email solution).

IN-HOUSE FAX SERVERS

These are typically legacy systems which have expensive hardware connected to serial ports with Class I or Class II fax modems, use ISDN boards, E1 or SS7 boards.

In-House Fax Servers are typically hosted on standalone hardware connected to your Local Area Network (LAN). This hardware will communicate with your telephone switchboard to deliver calls to your chosen carrier. This introduces redundancy, maintenance and configuration issues, as well as scalability issues due to the physical hardware and telephone line requirements.

The main issues today with in-house fax servers are:

1. Locating personnel with experience to manage the in-house fax servers
2. Being able to upgrade the operating systems to later supported operating systems
3. Upgrading the fax server software for the newer operating systems
4. Replacing the fax delivery hardware is either not achievable or expensive
5. We are even seeing the old POTs or PRA lines removed from product offerings, so you can't even connect the fax modems or fax boards to a line in many buildings

CLOUD BASED FAXING PROVIDER (TNZ'S SOLUTION)

The fax protocol is analogue and as the world switches to a digital, many carriers implement digital links in place of SS7 links. Should these digital links apply compression, this carrier is not suited for transmitting fax. Many carriers have tried implementing T.38 to carry the T.30 transmission, but this has not worked reliably and we now see a worldwide trend with most carriers dropping T.38 and attempting to send fax via G711 exclusively.

Cloud hosted fax providers that specialize in fax services can process faxes on a larger scale and are configured to use alternate delivery paths to mitigate these Telco related issues.

A reputable Fax Provider is aware of these issues and has many carrier connection points. i.e. there should be no single carrier and any fax can be delivered via any number of carriers. This is also a part of a dependable redundancy strategy.

TNZ support G711, T.38, T.30 faxing and work closely with carriers to ensure the optimum transports are in place to ensure successful delivery. Should a carrier fail to a certain area, TNZ can switch traffic to an alternate provider. That may be a global carrier with downstream providers, or a local carrier in a local geographical region.

TNZ monitor traffic failure rates. Should the failure rate increase to certain destinations, alerts are raised so alternate routes can be implemented and fault tickets can be raised. Telco's sending larger volumes of voice than fax cannot see an increase in failures, so could not pick this up. The line is 'called', 'answered' and 'hung up', which appears normal to them as they do not have the visibility on the fax transmission itself.

Successful deliveries are not only monitored on a country basis, but also on a local region basis. For example, faxes maybe delivering successfully overall via one carrier into the USA, but fail to the 707 area only. An alternate carrier is used to deliver into this area.

At present TNZ Group have seven active carriers that traffic is switched between, depending on the reliability of the destination. We are actively evaluating carrier performance and seeking new interconnections.

TNZ's fax capacity is 1000 concurrent faxes, or 1.4m faxes per day. This can be upscaled on demand or as required.

In summary, the benefits of selecting a cloud provider utilizing aggregation are:

- Centralized support (the single cloud provider handles downstream fault tickets with various carriers)
- Power to direct traffic across a variety of networks worldwide (if your business moves into a new territory, the same cloud provider can be used, minimizing administration)
- Redundancy in the event of a carrier outage (traffic is directed elsewhere)
- Full time management (cloud provider is responsible for maintenance, upgrades, licensing, personnel)

Why choose TNZ Group over other local regional carriers:

- TNZ Group has a proven track record with many years of experience
- TNZ Group is a specialized fax provider – we do not focus on other services (ie we are not a normal voice carrier who offers fax as an additional minor service)
- Global reach means one contract with one supplier
- Carrier grade equipment designed for fax specifically (avoid inferior technology issues)

PROPOSED SOLUTION

SERVICE DESCRIPTION

TNZ Group offers a fully outsourced hosted fax platform.
Customers are provisioned directly on TNZ Group's hosted equipment, allowing users to send and receive faxes electronically (via email, SOAP API, or Web). No equipment is required on your premises to service Fax-to-Email or Email-to-Fax.
Full Number Portability is supported in New Zealand and Australia.

Users can send faxes by attaching a document to an email and addressing the email to:
thefaxnumber@lan.nz (eg 095005000@lan.nz)
Once the fax has processed, users can opt to receive a delivery report stating whether delivery was successful or not (and if not, why).
A user's email address must be registered for sending faxes. Unregistered email addresses will receive an "Invalid User" email bounce-back report.

When a fax is sent to the recipient's fax number, it is delivered to them as a PDF or TIF document attached to an email. The email contains the Caller ID, Receiving Fax Number, and Date/Time Received.
TNZ Group offers a "never busy" service, meaning your customers do not experience an engaged tone.

WHITELABELLING

By default, users will see TNZ Group branding on notifications of faxes sent or received.
This branding will also be seen when using the Web Portal (if this option is enabled for your users).

We are able to customise this for you. Full customisation is available, including:

- Custom sending domain, eg faxes are emailed to "thefaxnumber@yourfaxdomain.com"
- Custom reporting email sender, eg delivery reports and received fax notifications are sent by "faxreports@yourfaxdomain.com"
- Email Templates are fully whitelabelled to display your branding, logos, helpdesk contact details, etc
- Portal Logins are fully whitelabelled to display your branding, logos, helpdesk contact details, etc

There is a nominal set up charge for the whitelabelling option, depending on the components requiring whitelabelling.

One of the primary reasons fax remains an important technology today is due to the secure nature of fax transmissions, which is why it is still employed by financial, legal and healthcare institutions.

TNZ Group utilizes multiple methods to ensure the best possible security across the product suite:

- **Email (SSL/TLS security)**
For receipt of messages to send, or delivery of received messages and delivery reports, the TNZ server will automatically default to using SSL or TLS encryption if the remote email server supports it. We also do have the option to enforce SSL/TLS encryption on your email domain(s) if you request it.

- **Web Portal/HTTP**
Users can access the Web Portal for sending messages and for viewing message data, viewing billing information, and for viewing registered services and users. Access to the Web Portal is restricted to HTTPS (SSL) using a certificate signed by an authorised third party.
Users who are using an API (HTTP or SOAP) to submit messages or receive Delivery Report and Reply Messages can optionally use HTTPS (SSL) to secure their connections.
You can view more information on TNZ Group's website security here:
https://www.tnz.co.nz/About/WebsiteSecurity

- **Storage (In-House Encryption, NoArchive Features, PGP Encryption)**
When a TNZ Group service is handling a fax that is to be sent or that has been received, the actual fax image is encrypted using TNZ Group's In-House Encryption software. It is then Base64 encoded to further deter intruders retrieving the fax data and reassembling the fax image. Only at the point of distribution to the end user (either via email, or when retrieved via the Web Portal) is the fax image decrypted and delivered as a PDF/TIF image.
NoArchive is an option that allows fax images to be removed as soon as a fax has been delivered. Call Detail Records (Caller IDs, times/dates, number of pages, etc) will be kept.
SecureFax is an additional option that enables PGP Encryption or a PDF Password on received faxes for an additional fee. This option is built to PCI-DSS compliance criteria.
Fax Data is stored online, accessible via the Web Portal for at least three months. Cold Backups are available for a period of up to 12 months.

- **Closed Networks, DMZs and VPNs**
TNZ Group's networks are closed, with physical access via authorised personnel only using industry standard access restrictions (keycards with separate keys, etc). Where remote IP access is allowed, access is restricted to VPN.

- **WAN File Transfers**
WAN file transfers (where files are transmitted to servers outside the main core network, typically for final delivery via Fax, SMS or Voice) are done so via a fully encrypted session using In-House built applications. The file is encrypted, broken into segments, then transmitted and reassembled at the receiving end. This ensures the upmost security when your data may be transmitted over a connection that is not controlled by TNZ Group.

REBILLING METHODS

MANUAL: INVOICE REBILLING

Page Three of your monthly tax invoice will detail our charges to you, itemised by SubAccount.
You can use these costs to rebill your client, optionally adding a margin if desired.

Messaging transactions by Sub Account

Sub Account	Faxes	Price	Emails	Price	TXTs	Price	Total
Customer One	1205	185.00	0	0.00	0	0.00	185.00
Customer Two	14	1.40	0	0.00	0	0.00	1.40
Customer Three	0	0.00	0	0.00	6	0.90	0.90
Customer Four	1163	156.23	0	0.00	3035	455.25	611.48

MANUAL: MONTHLY SUMMARY EMAIL

We can email you a report each month containing a summary of our charges to you itemised per
SubAccount. This shows the same data as the invoice, but in CSV format.
You can use these costs to rebill your client.

	A	B	C
1	SubAccount	Price	
2	Customer One	185.12	
3	Customer Two	1.49	
4	Customer Three	0.9	
5	Customer Four	611.48	
6			

AUTOMATED: DAILY OR MONTHLY CDRS

If you have a CDR capable billing system, we can distribute daily or monthly CDRs to you for rebilling.
Alternatively, you can use these CDRs to manually rebill your customers on a per-message basis.

CDRs are delivered via Email, FTP, or manually downloaded via the Partner Portal (Dashboard).

You will receive four separate CDRs:

- Outbound Messages CDR
Details the charges for sent messages, including Email, SMS, Fax, VoiceCast (Text-to-Speech), IM.
Transactional format.
Can be delivered via Email, FTP, or manually downloaded using the Partner Portal (Dashboard).

- Inbound Messages CDR
Details the charges for received messages, including Fax-to-Email and Voicemail-to-Email.
Transactional format.
Can be delivered via Email, FTP, or manually downloaded using the Partner Portal (Dashboard).

- Toll Calls CDR
Details the charges for toll costs, such as when a number is diverted to another number.

Transactional format.
Can be delivered via Email, FTP, or manually downloaded using the Partner Portal (Dashboard).

- Monthly Charges CDR
Details the monthly charges, eg Set Up Fees, Porting Charges, Monthly Fax Line Rental charges, etc.
Distributed once per month via Email, typically on the 5th.

PRICING

RECOMMENDED RETAIL PRICING

Unlike typical carriers where "per minute" pricing is standard, Fax-to-Email and Email-to-Fax providers traditionally charge "per fax page" that is sent or received.

TNZ Group's retail pricing is:

Connection Costs:	$40.00 Set Up Fee Per Fax Number Ported
	- No set up fee for new DDIs
On-going Costs:	$10.00 per month per Fax Number
Transaction Costs:	$0.15 per fax page sent to New Zealand Landlines
	$0.15 per fax page sent to Australia Landlines
	$0.20 per fax page received

* Accurate as at 1st October 2016. Displayed in NZD ex GST.

WHOLESALE PRICING OPTIONS

We have two wholesale pricing models that may interest you:

Per-Fax-Page pricing
We charge you per-fax-page, similarly to how we charge our retail customers.

Advantage: Better reflects the value of fax as a value added messaging platform, rather than a telephone call
Disadvantage: May be limitations integrating this unit type into your billing/invoicing solution

Per-Minute pricing
We charge you per-minute, similarly to typical telecommunications billing.

Advantage: Simpler to integrate into your billing solution
Disadvantage: Commercially difficult to communicate a higher price for fax in comparison existing per-minute telephone rates

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