



WiMAX



Technology Definition

WiMAX is a telecommunications technology aimed at providing wireless data over long distances in a variety of ways, from point-to-point links to full mobile cellular type access. It is based on the IEEE 802.16 standard, which is also called WirelessMAN. The name **WiMAX** was created by the Wi-MAX Forum, which was formed in June 2001 to promote conformance and interoperability of the standard. The forum describes **Wi-MAX** as "a standards-based technology enabling the delivery of last mile wireless broadband access as an alternative to cable and **DSL**."

<http://en.wikipedia.org/wiki/Wi-Max>



Product Offering Definition

- **Fixed Wireless Access bundled with Internet Access.**
- **Cookie-cutter microwave solution that is fast to roll out.**
- **Operating in a licensed spectrum.**
- **Two distinct Quality of Service offerings**
 - **Assured Rate, offering constant bit rate and always on internet access.**
 - **Broadband, offering higher burstable speeds combined with internet bandwidth bundles.**

External antenna used with indoor CPE



Outdoor antenna and CPE in one used primarily for Assured Rate installations



Who is this product available to?

Vodacom and Non Vodacom customers

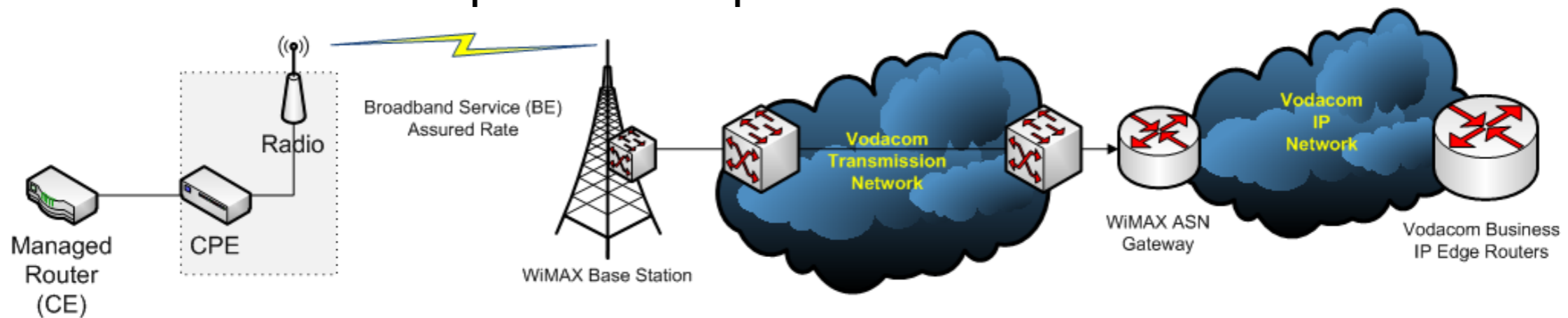
Individuals, Micro, Medium, Large Business

Positioned as Fixed Broadband / ADSL / Diginet replacement



Product Differentiation

- Business grade wireless IP Network.
- Consistent service in defined areas.
- Secure access using licensed frequencies.
- Allows Vodacom to provide self-provisioned last mile access.



Product Positioning

- Primary Market: Corporations, large and medium businesses and SMEs
- Product is positioned as a premium Business grade wireless service
 - Guaranteed a minimum capacity allocation on a base station.
 - Professional installation by trained personnel.
 - Strict technical installation criteria such as minimum required signal strength and base station capacity availability.
 - Low contention ratios for broadband.
 - Constant bit rate option offered by Assured Rate service.
 - Broadband soft-capped to allow for business continuity after cap has been reached.



Value Proposition

- Same upload and download speeds and is currently the only symmetrical broadband service in SA.
- Reliable business grade connectivity.
- Static IP address options allowing for functionality such as inbound access for purposes of hosting internal websites, mail servers and applications.
- Network firewall and adult content management options are an inherent part of the service offering better security.
- Greater service availability due to no copper infrastructure that can be stolen.
- Fast install time - 5 to 9 days from order.
- Hardware payment plan.
- Soft Cap for business continuity.



Wi-Max Broadband

<u>Option 1</u>	512 Kbps
<u>Option 2</u>	1024 Kbps

- This is a symmetrical service (uplink and downlink speeds are the same)
- 5 Gig & 10 Gig packages are available.
- Once the initial bundle is depleted, the subscriber's connection will be throttled down to 16 Kbps so that they can still surf without being charged an out of bundle rate. The subscriber will have the option of purchasing either a 5 Gig or 10 Gig adhoc bundle, which will reinstate the client's throughput speed to which they have subscribed.



Wi-Max Assured Rate dedicated

<u>Option 1</u>	64Kbps
<u>Option 2</u>	128Kbps
<u>Option 3</u>	256Kbps

- This is a symmetrical service (uplink and downlink speeds are the same)
- A dedicated service means it will always be available, on demand, at the speed the customer has subscribed to.
- Traffic from these customers get the highest priority on the network when there is congestion. (this is true for both the radio and internet components of the service)
- Assured Rate options have unlimited access to the internet and therefore do not make use of bundles



Wi-Max Assured Rate low contention

<u>Option 1</u>	128-256 Kbps
<u>Option 2</u>	256-512Kbps

- This is an asymmetrical service (downlink is faster than the uplink)
- Uplink speeds are: Option 1: - 128Kbps
Option 2: - 256Kbps
- The downlink speed will burst up to the higher Kbps rate shown in the options above, most of the time:
Option 1: - 256Kbps
Option 2: - 512Kbps
- Assured Rate options have unlimited access to the internet and therefore do not make use of bundles



Billing Options

The subscriber will have 2 billing options available:

24 Month contract

- The invoice will be raised at the end of the month (Pro-rata)
- The full bundle will be allocated on the activation date.
- Bundle allocation will take place on the first of every month.
- Normal billing processes will be followed.

Month to Month contract

- Customers will be invoiced at the end of the month (Pro-rata and hardware)
- The full bundle will be allocated on the activation date.
- The full bundle will be allocated the first of every month.
- Normal billing processes will be followed.



Pricing

- WiMAX portfolio with access and internet bundled

WIMAX Assured Rate Symmetrical 256k Direct Internet	WIMAX Assured Rate Symmetrical 128k Direct Internet	WIMAX Assured Rate Symmetrical 64k Direct Internet	WIMAX Assured Rate Symmetrical 256k Premium Internet	WIMAX Assured Rate Symmetrical 128k Premium Internet	WIMAX Assured Rate Symmetrical 64k Premium Internet	WIMAX Assured Rate Symmetrical 256k Local only Internet	WIMAX Assured Rate Symmetrical 128k Local only Internet	WIMAX Assured Rate Symmetrical 64k Local only Internet
R 5,890.35	R 3,899.12	R 2,434.21	R 8,337.72	R 5,144.74	R 3,065.79	R 4,846.49	R 3,364.04	R 2,171.05



Pricing

- WiMAX portfolio with access and internet bundled

WIMAX Broadband 512k 5Gb Shaped	WIMAX Broadband 512K 10GB Shaped	WIMAX Broadband 512k 5GB Unshaped	WIMAX Broadband 512k 10GB Unshaped	WIMAX Broadband 1024k 5GB Shaped	WIMAX Broadband 1024k 10GB Shaped	WIMAX Broadband 1024K 5GB Unshaped	WIMAX Broadband 1024K 10GB Unshaped
R 605.26	R 850.88	R 859.65	R 1,324.56	R 666.67	R 912.28	R 921.05	R 1,394.74



Pricing

- WiMAX portfolio with access and internet bundled

<p>WIMAX Assured Rate Asymmetrical 128k -256k Express 256 internet</p>	<p>WIMAX Assured Rate Asymmetrical 256k -512k Express 256 internet</p>	<p>WIMAX Assured Rate Asymmetrical 128k -256k Local only 256 internet</p>	<p>WIMAX Assured Rate Asymmetrical 256k -512k Local only 256 internet</p>
R 4,899.12	R 7,881.58	R 4,109.65	R 6,346.49



Equipment Costs - Once Off

Once off costs are charged on the first bill

Compulsory CPE Costs:

- CPE with antenna, cable and brackets: R5905.20 once off (incl. Vat) or financed over 24 months

Optional Equipment:

- Router for broadband. (WiFi & VoIP ready) R1380.00 (incl. Vat) once off or financed over 24 months
- Surge (Lightning) Protection: R1856.00 (incl. Vat) once off or financed over 24 months

Compulsory Installation Charge:

Once off charge R1710 (incl. VAT)



Equipment Costs - Finance Option

Equipment Financed over 24 Months

WiMAX CPE	R 289.19
WiMAX CPE + WiFi Router	R 356.73
WiMAX CPE + Surge Protection	R 380.06
WiMAX CPE + Surge Protection + Wifi Router	R 447.60



Pricing vs Competitors

- Middle of the range compared to competitors
- More expensive than Screamer, but Vodacom doesn't charge an out of bundle rate when the cap is reached. Vodacom only reduces the speed of the line.
- More expensive than Telkom WiMAX at 512kbps speed but Vodacom does not terminate the service after the cap is reached.
- Cheaper than Neotel on the broadband offering and on par with the Committed information rate options.
- Significantly cheaper than Zinia.

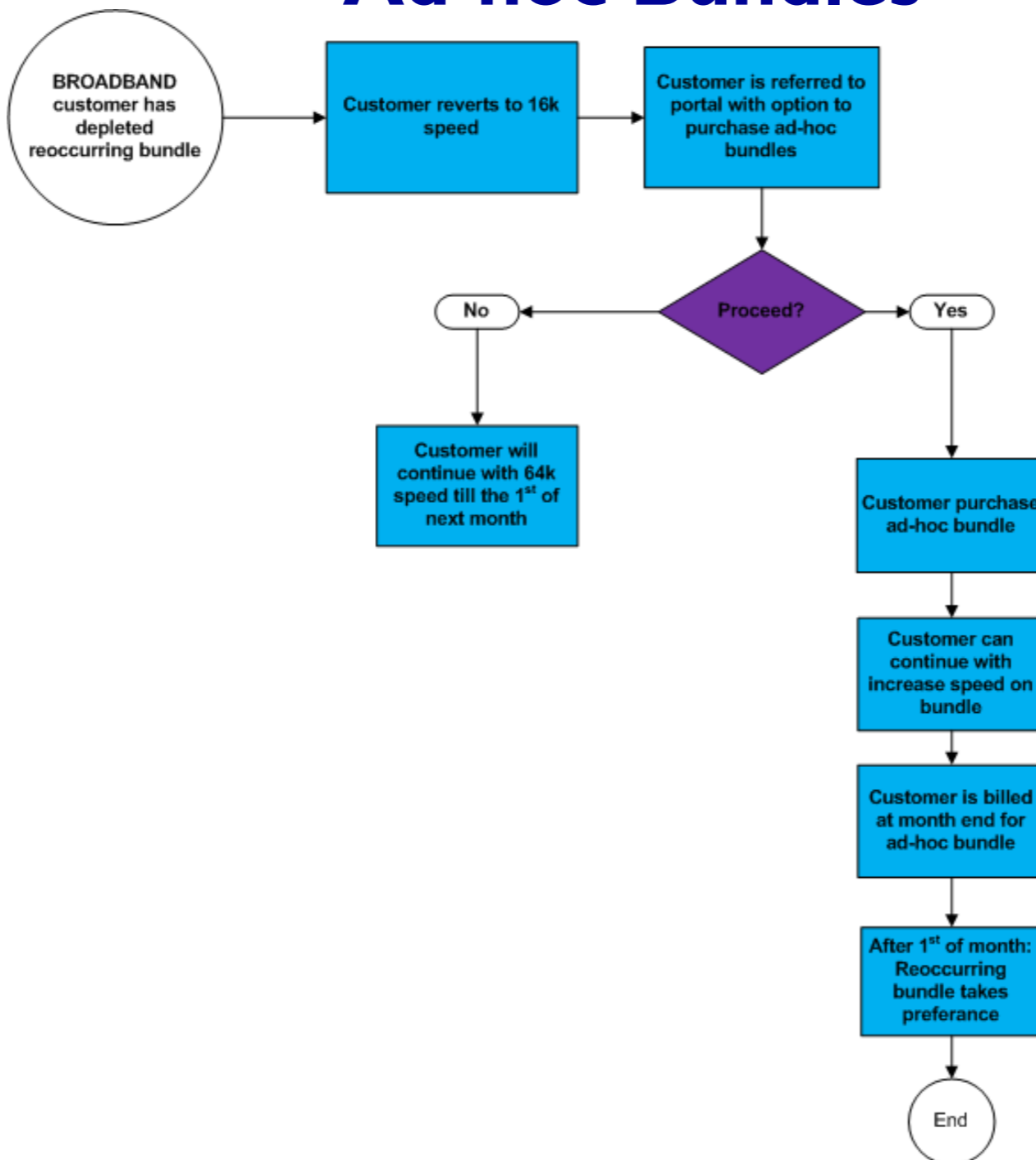


Ad-hoc Bundles

- Once their recurring bundle has been depleted, the subscriber's speed will be throttled down to 16Kbps, and will continue with 16Kbps speed until the first of the next month, unless they purchase an ad-hoc bundle.
- The Subscriber will be referred to a portal with the option to purchase ad-hoc bundles.
- If the subscriber purchases an ad-hoc bundle:
 - The subscriber will have access to the increased speed.
 - The subscriber will be billed at the end of the month
 - After the first of the month, the recurring bundle will take preference.
 - Adhocs are available for 30 calendar days from the date of purchase.



Ad-hoc Bundles



Warranties

- 2 year manufacturers warranty for hardware defects
- Warranty does not cover abuse or malicious damage
- Hardware faults will have to be reported to 155 for consumers and 1940 for corporations
- Technicians will perform a swop out if necessary



System Requirements

System requirements

- System Memory: Minimum 512 MB, recommended 1GB
- Disk Space: 100 MB

Software

- The minimum requirement is OS: Windows 2000/XP, Ubuntu Linux, MAC

Hardware (Customer Premises Equipment)

- Antenna (external and or internal)
- Wi-Max IDU (Indoor Unit)

Only equipment approved & provided by Vodacom will be used



Quoting and Order Taking

- Quotes are created on the quoting wizards or Siebel.
- Orders are captured on Siebel as a DIA service with WiMAX as an access service.



Ordering Wi-Max

The subscriber will need to meet the following **3 minimum requirements** to be able to subscribe to one of the WiMax offerings:

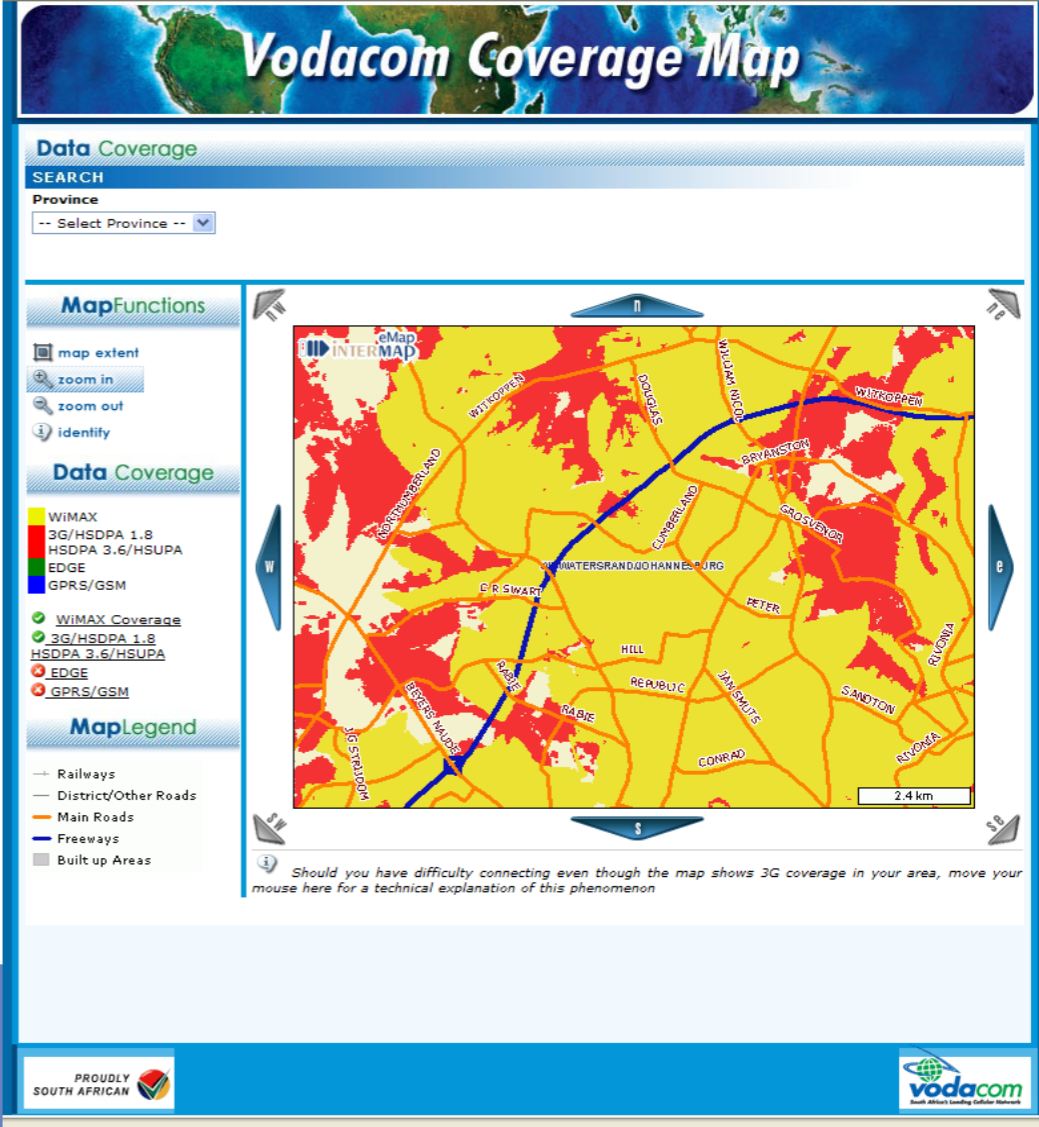
1. The subscriber's premises must fall within the WiMax coverage area.
2. The subscriber must be successfully credit vetted.
3. There must be capacity on the nearby WiMax base-stations to cater for the subscribers requesting the WiMax service.



Wi-Max Coverage

This will be available in major metropolitan areas. The coverage maps are available on www.vodacom.co.za under Packages – Coverage Map.

Coverage is checked online before an application for the service is done. A site inspection will be done at the time of installation to confirm that the signal strength is sufficient and there are no obstacles.



Vodacom Coverage Map

Data Coverage

SEARCH

Province
-- Select Province --

MapFunctions

- map extent
- zoom in
- zoom out
- identify

Data Coverage

- WIMAX
- 3G/HSDPA 1.8
- HSDPA 3.6/HSUPA
- EDGE
- GPRS/GSM

MapLegend

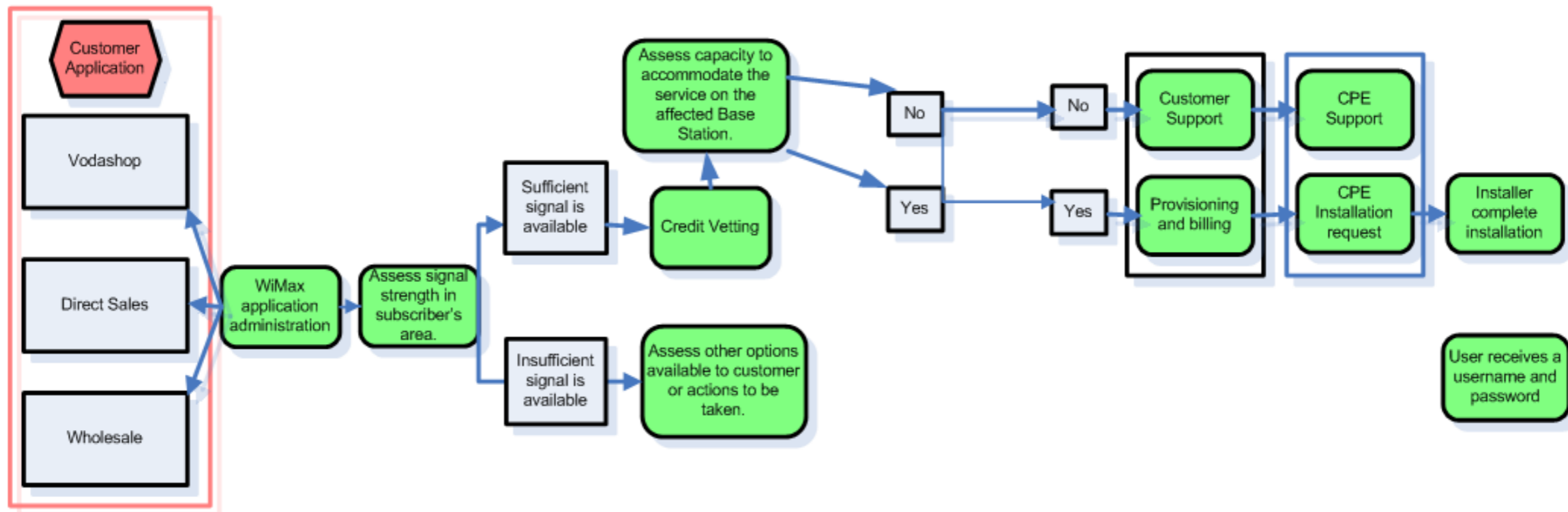
- Railways
- District/Other Roads
- Main Roads
- Freeways
- Built up Areas

Should you have difficulty connecting even though the map shows 3G coverage in your area, move your mouse here for a technical explanation of this phenomenon

PROUDLY SOUTH AFRICAN

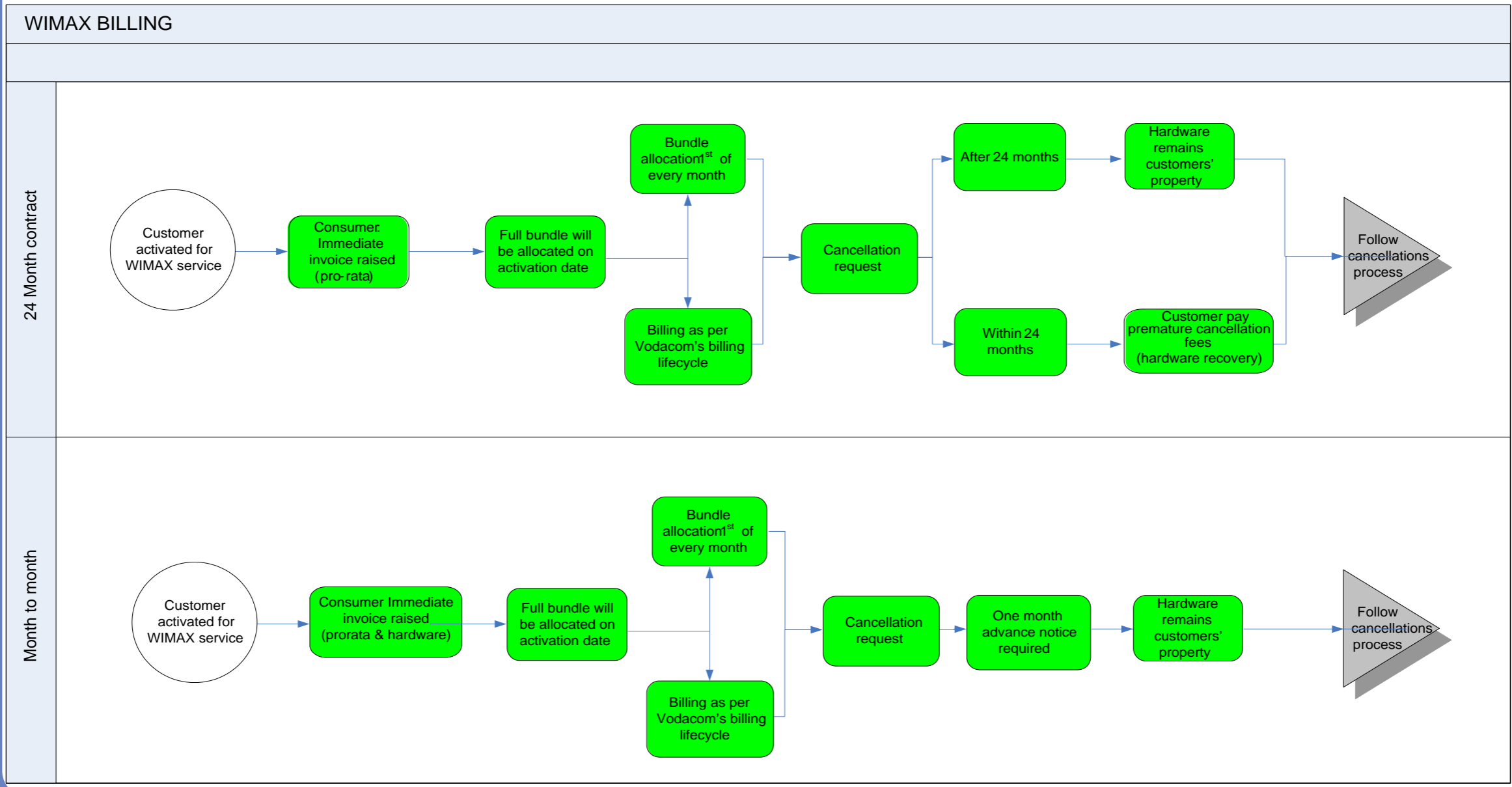
vodacom
South Africa's Leading Cellular Network

How can a customer get Wi-Max



Billing Options

WIMAX BILLING



Support

- Business Partner provides first line of support.
- Higher levels managed by CSOC.



How much will it cost?

Broadband Tariffs

Broadband access & internet bundle	5GB	10GB
512 Kbps shaped	R690.00	R970.00
1024 Kbps shaped	R992.00	R1 334.00
512 Kbps unshaped	R980.00	R1 510.00
1024 Kbps unshaped	R1 050.00	R1 590.00
Bandwidth booster		
Boost 5000 shaped		R399.00
Boost 5000 unshaped		R684.00
Boost 10 000 shaped		R741.00
Boost 10 000 unshaped		R1 311.00





THANK YOU

www.interprise.co.za

