

The WiFi Operator

**Providing Wireless Connectivity Services
in Hot-Spots and Beyond**

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Wireless Broadband Anywhere

<http://www.gemtek.com.tw>

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Introducing...

■ Gemtek Technology Co. Ltd. (Taisdaq: 4906)

- ❖ World's Leading Supplier of WiFi Products
- ❖ Volume 1Q02: Over 1 million units
- ❖ Customers include:
 - D-Link, Linksys, Intel, Compaq, I/O Data, Melco, Alcatel

■ Gemtek Systems Inc.

- ❖ Subsidiary of Gemtek Technology Co. Ltd.
- ❖ Addresses Public Access Market with Solutions for:
 - Telcos, ISPs
 - Local Operators
 - Mobile Operators

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Solutions for Public Access

■ Provide WiFi Services in Hot-Spots

- ❖ Airports, Hotels, Conference Centers, Malls, etc.

■ Potential Service Providers are:

- ❖ Site owners (Local Operators)
- ❖ ISPs and WISPs
- ❖ Telcos
- ❖ Mobile Operators (adding high-speed connectivity)

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Mobile Operator (Voice)

■ The ideal cell phone:

❖ Multimode phone

- Cordless for indoor
 - *PBX extension in office (free internal calls)*
 - *Cordless phone at home (no airtime fee)*
- Cellular for outdoor
 - *GSM 900, GSM 1800, GSM 1900, CDMA*
- Seamless roaming over technology boundaries

■ Such a phone does not exist

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Mobile Operator (Internet)

■ The ideal computer connection

❖ Multimode PC card

- 802.11 for indoor connection
 - *WLAN in office*
 - *Home network*
 - *Public Access service in hot-spot*
- Cellular data for outdoor
 - *GPRS (2.5G), 3G*
- Seamless roaming over technology boundaries

■ Such a PC card exists!

Building Blocks for Mobile Operators

■ SIM card

❖ Uses mobile operator infrastructure for:

- Authentication
- Administration
- Billing
- Roaming

■ 802.11

❖ Provides low-cost, high-speed wireless access

- Hot spots (via SIM card AAA+R)
- In office and at home (via local policies)

■ GPRS

❖ Supplies reduced-cost, low-speed wide-area connectivity

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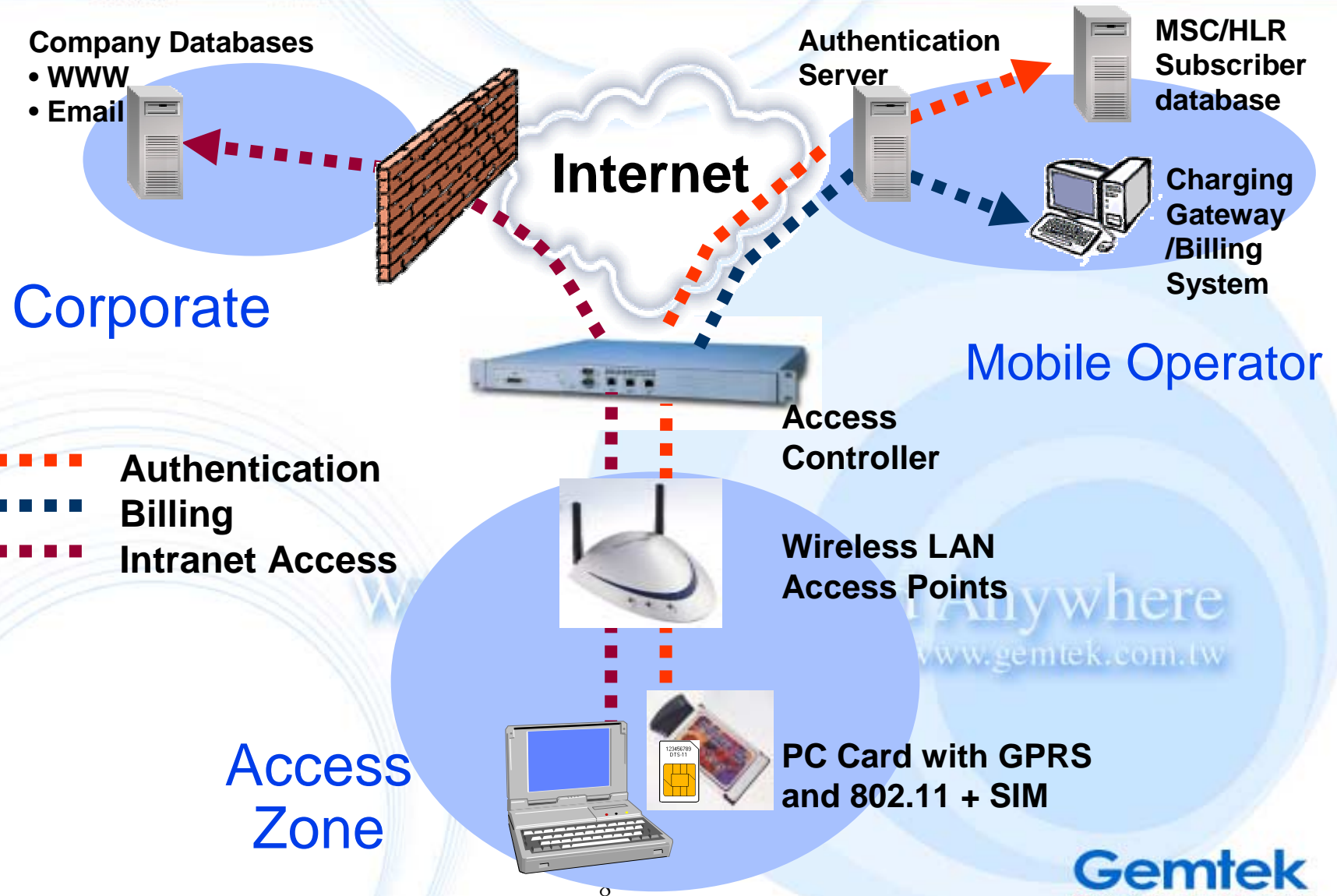
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SIM-based WiFi Operators

■ Mobile Operator Solutions:

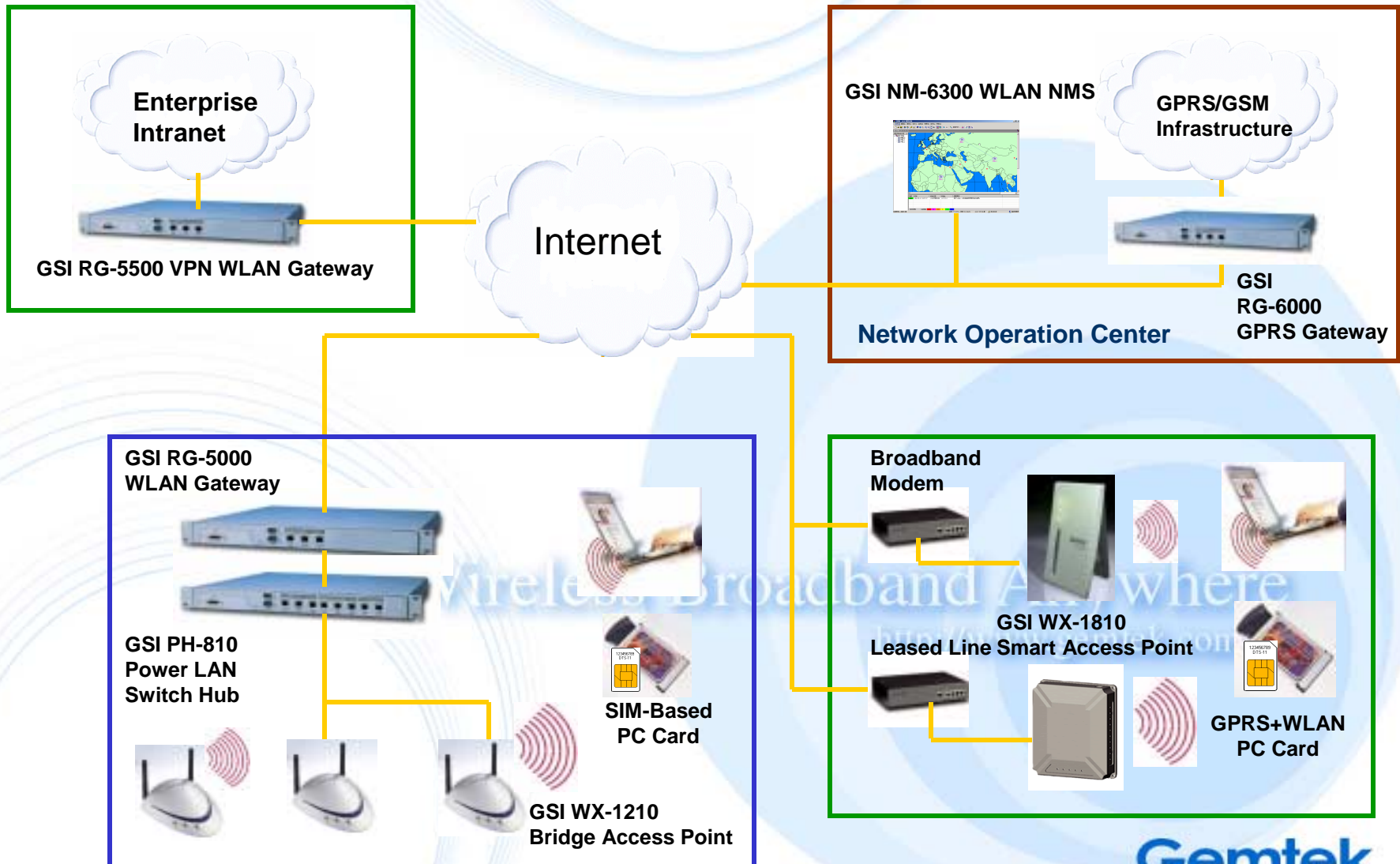
- ❖ SIM card is key to advanced WiFi services solution
 - Authentication, Roaming, User Management and Administration infrastructure in place
 - Roaming agreements established
- ❖ User base in place
 - Calculations indicate payback period of < 12 months with:
 - \$25 flat fee per month, per user
 - 2% penetration within user base
 - Broad coverage through many hot spots
- ❖ WiFi Broadband service seamlessly integrates with 2.5G or 3G
 - Provides true broadband connectivity in hot-spots
 - Requires low-density coverage in hot-spots (Save big on Capex)
 - Provides wide area coverage thru 2.5G and/or 3G

SIM-based Architecture



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5.3. Mobile Operator WLAN Solution



Conclusions

■ Public Access is an “any-player” game

- ❖ Local operators
- ❖ Incumbent operators
- ❖ Global operators

■ Mobile operators, specifically GSM-based, are well positioned to roll out “Hot-spot” services

- ❖ User base
- ❖ AAA+R (SIM-based)
- ❖ Wide Area “back up” (GPRS)

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