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The Secure Wireless Access Company

Capslock

Challenges and Opportunities in the US

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Todays´s topics

- **Quick company overview: What is Capslock, what we do and what we offer for our clients?**
- **Differences between Europe and the US: Wireless infrastructure, development and business opportunities.**
- **Capslock´s experiences as Finnish company inside the tornado eg in Silicon Valley.**
- **Q&A**

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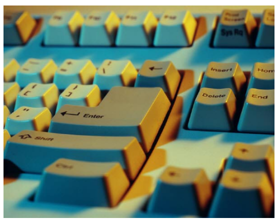
Capslock in a Nutshell



Established in 1996

- Profile:
  Secure Wireless Application Infrastructure Provider
- Currently 53 employees (60 by Q1/2001)
- Funded by Conventum, one of the largest investment banks in Finland

Operations

- HQ and R&D activities in Finland (Espoo, Jyväskylä)
- Sales and marketing office in San Jose, CA.

Cooperation

- Partnering with BEA Systems, Ericsson, Hewlett-Packard, KPMG and Nokia
- Strategic partner and sub-contractor for large IT solutions in Finland (target customer groups: operators/carriers and large media content providers)
- Participates in several TEKES technology programs (Finnish National Technology Agency)

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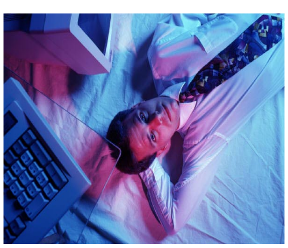
Business Problem



- *Two major problems*
  - ***Generic** content presentation (need for XML based services)*
  - ***Secure** wireless TCP/IP communication (all applications, several platforms and networks)*
- *Both problems must be solved before large companies really go further in wireless-enabling their workforce and clientele.*
- *Software solutions are needed for multi-platform, extremely heterogeneous environment for fast deployment.*

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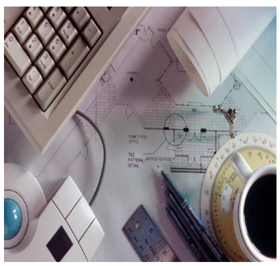
SWAT
Secure Wireless Access Technology



- *Licensable technology:*
  SWAT – Secure Wireless Access Technology
  as C, C++ and Java libraries.
- *From technology to applications:*
  1st application ***SecureSocket*** – enables secure communications for any TCP/IP client-server application within various Smart Phone and PDA platforms.
- *For Wireless PDA devices and Smart Phones:*
  Target platforms include EPOC, WindowsCE3.0, PalmOS, Java and native Windows. ***SWAT*** uses multi-platform application architecture for securing wireless-enabled TCP/IP communications.
- *Rapid development from prototypes to products:*
  Prototyping with Java, porting to platform specific libraries and products: C in PalmOS and C++ in WindowsCE3.0.

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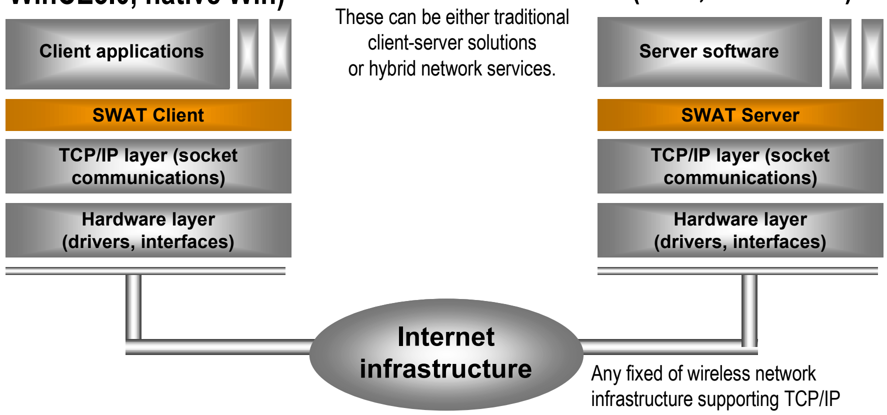
How SWAT fits into TCP/IP world?

Client side (Java, Epoc, PalmOS, WinCE3.0, native Win)

Applications using TCP/IP socket communication. These can be either traditional client-server solutions or hybrid network services.

Server side (Java, native Win)



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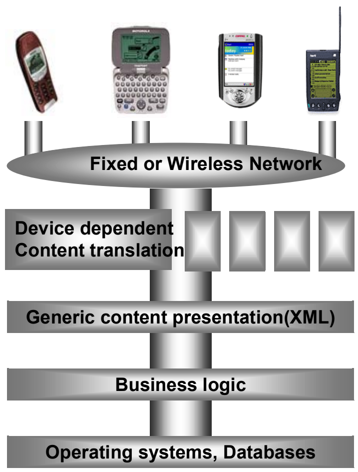
CAWA
Capslock Advanced Wireless Architecture



- **CAWA Development Environment** – to build completely new hybrid network services and wireless-enable existing Internet services.

- **Mobilizer** – Solution for wireless-enabling existing Internet sites
- **WAPShop** – The mobile e-commerce solution
- **PersonFinder** – The Who is Who solution for a Company
- **CIA** – Competitor Intelligence Application
- **Hybrid network game concepts** for SMS/WAP/WEB such as Midway
- **Hybrid time/resource reservation systems** for sport events, medical care, car repair and others.

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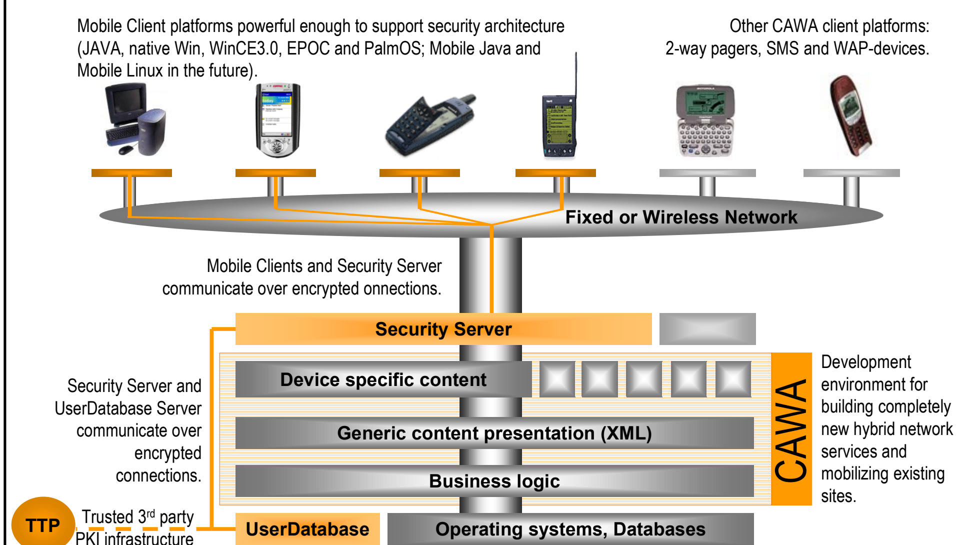
Capslock Advanced Wireless Architecture



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Why US operations?

- First packet-based wireless networks available: Mobitex, CDPD
- Fast user adaptation rate and steadily growing user base. Traffic-based billing is reality, good content available.
- Silicon Valley is THE PLACE for networking (partners, integrators, OEM) and publicity (press, analysts).
- Homogeneous market area (the US): language, business habits, currency and market dynamics. Market size 50x Finland.
- Use Finland as a Wireless Laboratory

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Some myths about the US

- **Market entry is almost impossible.** Only true if you wait and let US companies do that before you. Timing is everything.
- **Europe is well ahead of the US in wireless technologies.** That might be true in regards of mobile phones (coverage, roaming, penetration rate), but is definitely not true in so-called 2.5gen networks (tcp/ip support, packet-based)
- **Operations in Silicon Valley are expensive and when you sit inside a tornado you can´t make your voice heard.** Does not apply in the wireless world yet, as there is some good spin from Wall Street specially for Finns. Cost structure about the same as in London City.
- **Small players won´t survive in Silicon Valley.** Every gorilla has had its childhood. SMEs in Valley employ percentage wise most of the people.

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Some truths about the US

- **Nobody understands what wireless really is/or means.** This is brute generalization, but applies to consumers. In Finland almost everybody knows WAP and understands what else you can do with your mobile phone. In the US only technically literate people have some understanding of this.
- **Americans think that the killer app for wireless world will be e-mail.** Sad but true – the concept of mobile entertainment, messaging or b2c-apps is unknown to them. Reason: mobile devices are used mostly by business users, in the US mobile phones are not something for everybody (yet).
- **Heterogeneous infrastructure environment makes operations difficult.** That certainly applies to GSM-type SMS-based services, as the scene is crowded with CDMA, TDMA, GSM, CDPD and others. Roaming is somewhat limited, SMS is not default available. These problems don´t exist TCP/IP based services.

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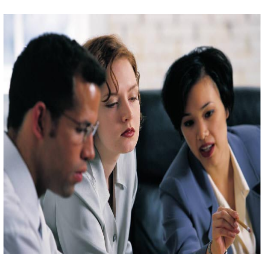
Opportunities in the US



- **Existing channels.** Markets are dominated by sales channels: System integrators (SI), Value-adding resellers (VAR) and Original Equipment Manufacturers (OEM). Instead of setting offices into every corner of the US (or world) one can go and use existing channels to rapidly ramp up the sales coverage.
- **The culture of fast adaptation of new technology.** Everybody is waiting for similar boom for the wireless side as there was with Internet in 1997-98. This offers lucrative opportunities for well-productized software components.
- **Co-operate with trend setters and get some visibility.** Most of the IT magazines, all remarkable IT analyst groups and almost every major IT corporation have an office (in most cases HQ) in Silicon Valley. If you are looking for press or analyst coverage, partnerships and eventually – credibility in the eyes of Europeans, Silicon Valley is the place to be.

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Challenges for a Finnish company in Silicon Valley

- How to recruit competent personnel?
- There is no time to learn how to do things. Experience counts and costs.
- Keep your cost structure reasonable. Basic rules apply: salaries 3x, office rent 2.5x, outsourced services 2x, legal advice 3x etc.
- Lack of network – networking with people opens doors, helps you to survive in a turbulent environment.
- How to select best subcontractors? Use the help of your business partners, friends and other similar players in the same field.
- Rule of thumb: Finns are not natural-born salesmen. Use Americans to sell Americans.
- Make yourself heard: participate, agitate and use the hype for your own advantage.

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Thank you !

To learn more about Capslock check out our corporate web/wap/palmsites:

www.capslock.fi
wap.capslock.fi
palm.capslock.fi

Job opportunities:

jobs@capslock.fi

General information:

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