NetHAM nano

The monitoring service on cloud

Network Technology Lab
NECTEC

NetHAM
สายลับจับเน็ตล่ม

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ปัญหา IT ที่พบบ่อยในองค์กร

1. Site outage
2. Slow Internet

Loss to business
- Sale
- Customers
- Reputation
- Productivity

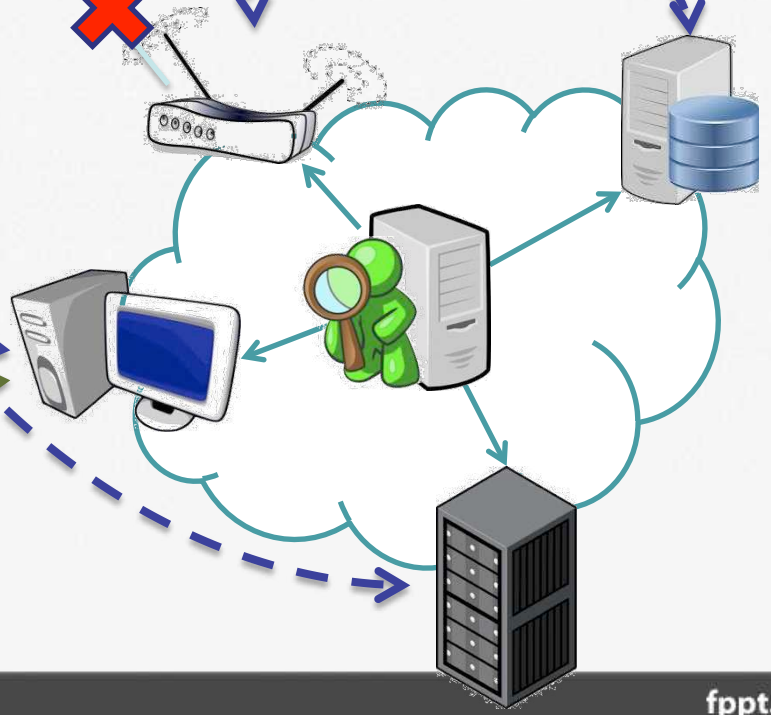
ธุรกิจ E-commerce
(โรงแรม ท่องเที่ยว บริการ อื่นๆ)
สูญเสียรายได้
33 ล้านบาท/ชม.

Software-based monitoring

- ต้องล[illegible]โปรแกรม
- ไม่เห็น[illegible]ผิดปกติ
- แจ้งเตือนไม่ถึง

Cloud-based monitoring (Software-as-a Service)

- ไม่ต้องลงโปรแกรม
- พบทุกความผิดปกติ
- ไม่พลาดการแจ้งเตือน
- ดูแลได้จากหลายจุด



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Why NetHAM Nano?

Very simple		Anyone can use
No software		No headaches
No hardware		Big savings
Cloud-based		Zero downtime
Award-winning*		Proven technology

*รางวัลนวัตกรรมโทรคมนาคมจาก กสทช. ปี 2552

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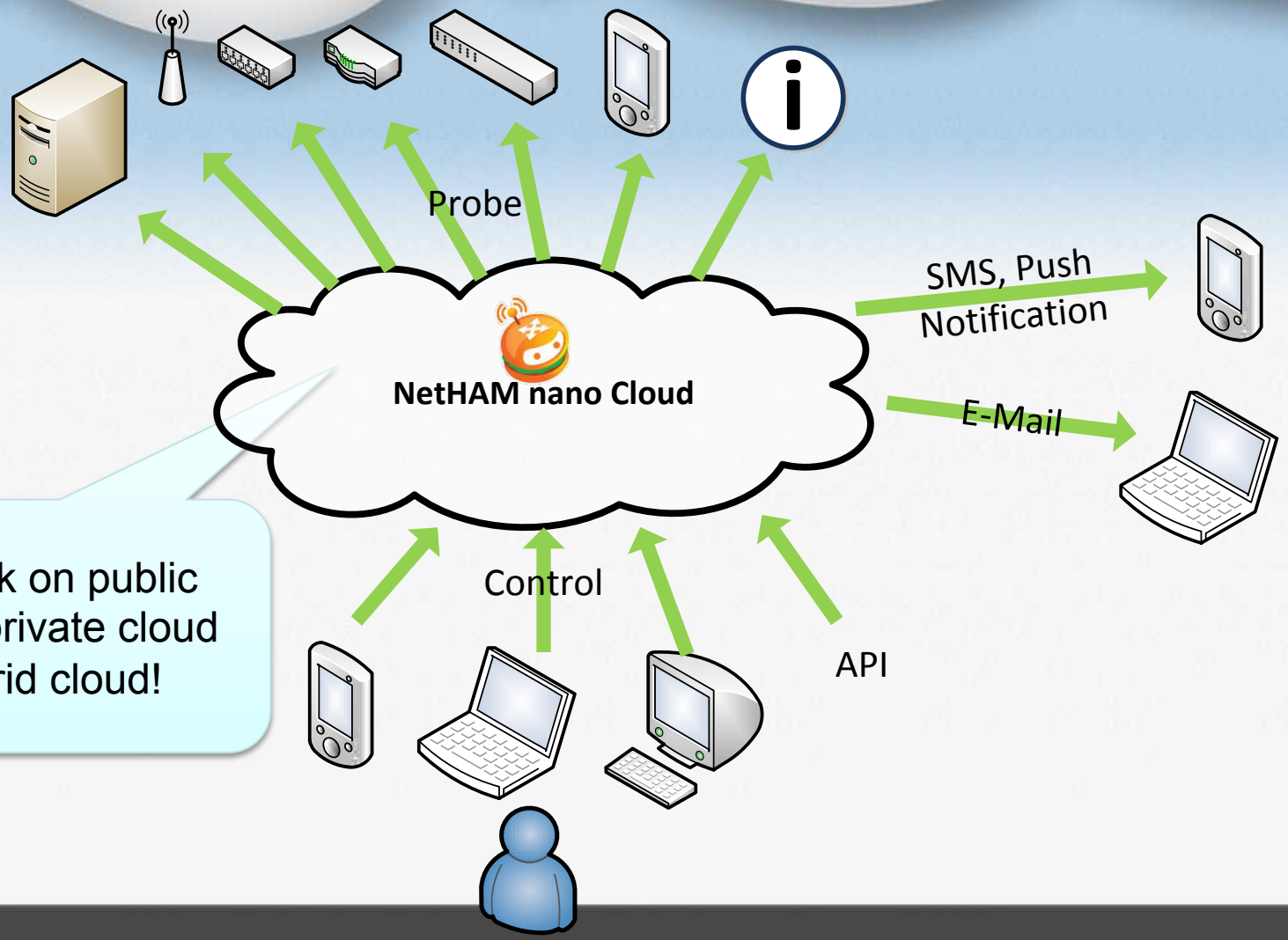
Logical Architecture



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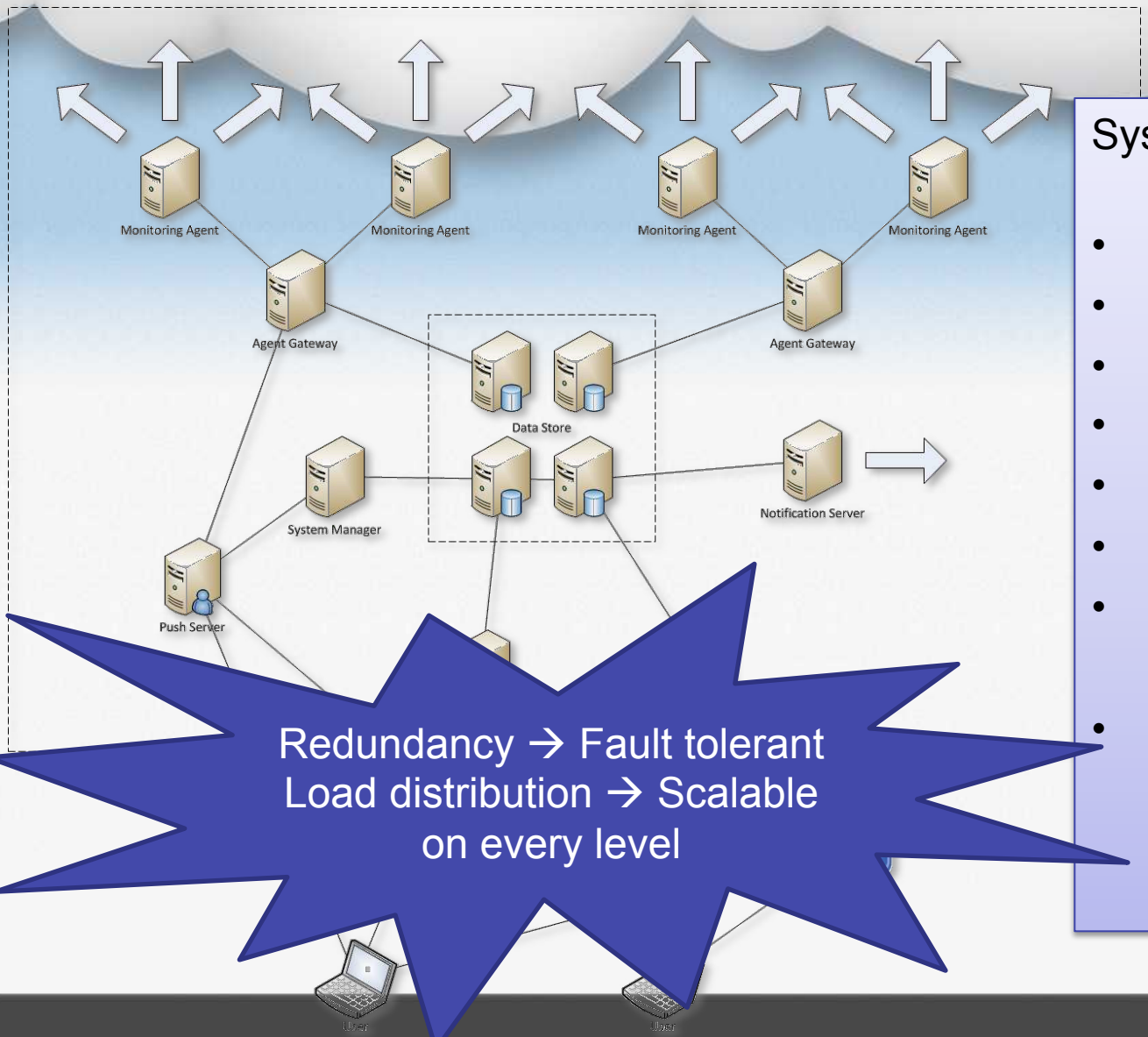
Inside the Cloud



System Components

- Data store
- Agent
- Agent gateway
- Notification node
- Manager
- Event Pusher
- Front end node

- More to come e.g. Analyzer, Aggregator

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Agent

Things agent must do

- Configurable scheduling daemon.
- Must works behind NAT.
- Flexible enough to extend the functionalities.

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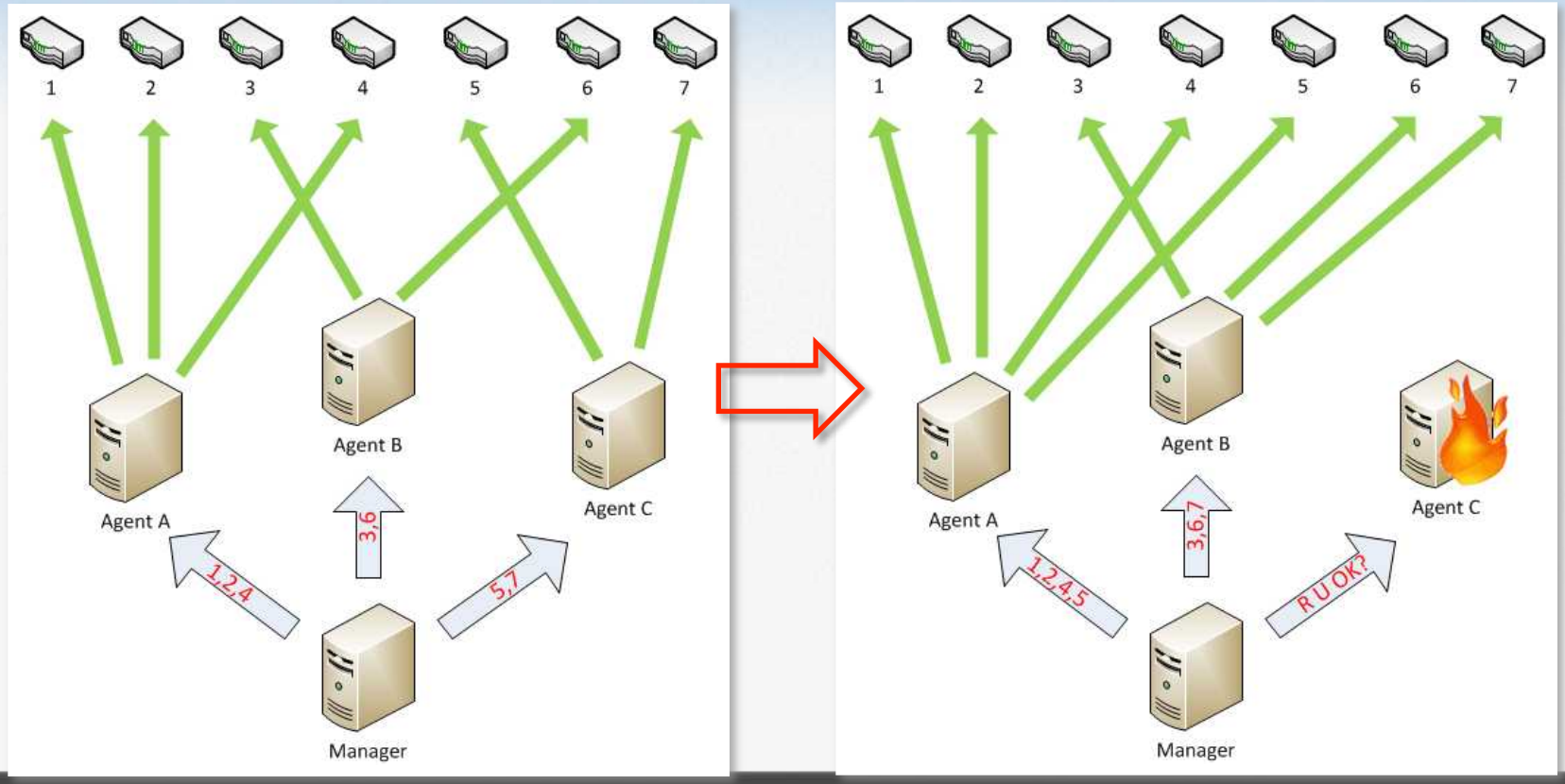
Failover Mechanism

- Monitor jobs and distribute them among agents



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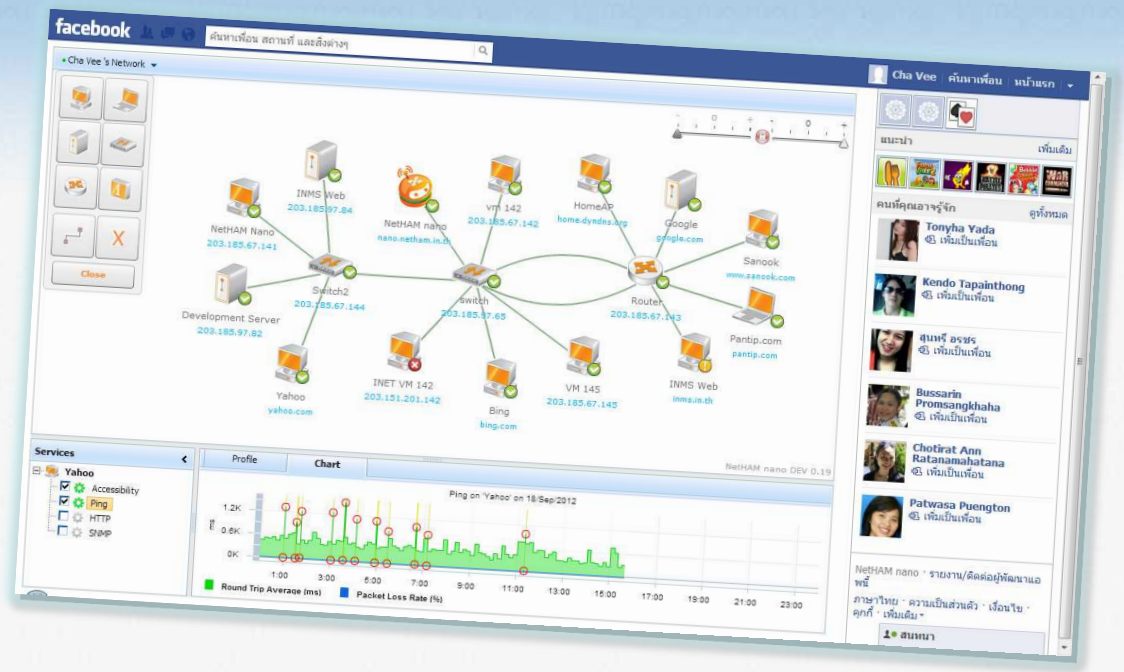
NetHAM nano Front End

- SSL web integrate with Facebook Application Platform.
- Real-time status update via the push engine.
- Hassle-free user interface.



https://apps.facebook.com/nethamnano

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Project Status

- 75% done.
- Scheduled to be available at the end of 2012.
- Become testers (need an invitation code) at

  http://apps.facebook.com/nethamnano

- Looking for more places to deploy nodes.

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Looking for Co-Creation

- Deploy nodes to support multiple-point monitoring from different regions/countries.
- Innovative applications e.g.
  - home monitoring
  - location-based service
  - specific information retrieval for end users e.g. weather, disaster report etc.

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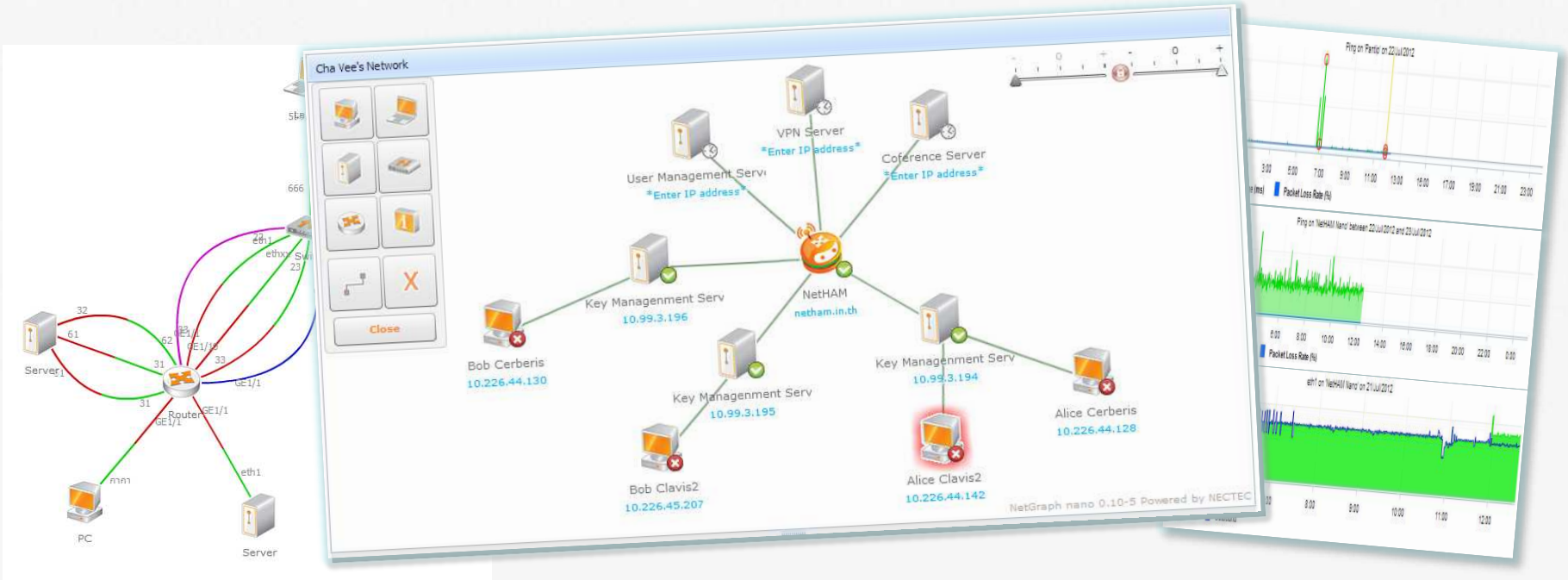
Some use cases :
Network monitoring system

- To monitor network devices such as switches, routers, servers.
- To monitor remote service e.g. PING,HTTP,SNMP (more to be added)
- Support distributed monitoring via multiple agents.
- Suitable for small networks, small offices, websites etc.



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Some use cases :
Home applications

- NetHAM nano can be used to monitor home networks via usual ADSL modems.
- By doing a port forwarding, NetHAM nano could answer these questions :

Is my sister home?

How stable is our ISP?

Did I forget to turn off a TV?

When did my son go to bed last night?

Will be even more exciting if we install a home agent!

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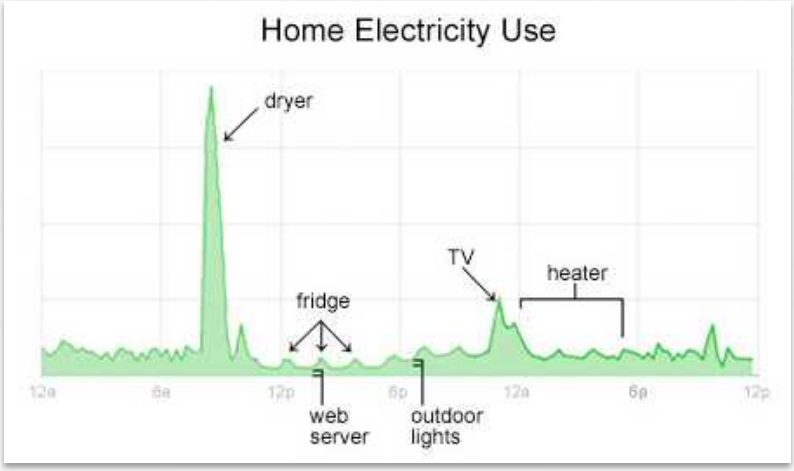
Some use cases :
Smart energy

- By using a smart meter, it is possible to monitor home electricity consumption the same way as Google Powermeter does.
- Monthly electric bill can be predicted.
- Alerts when there's anything wrong with the electric usage patterns.



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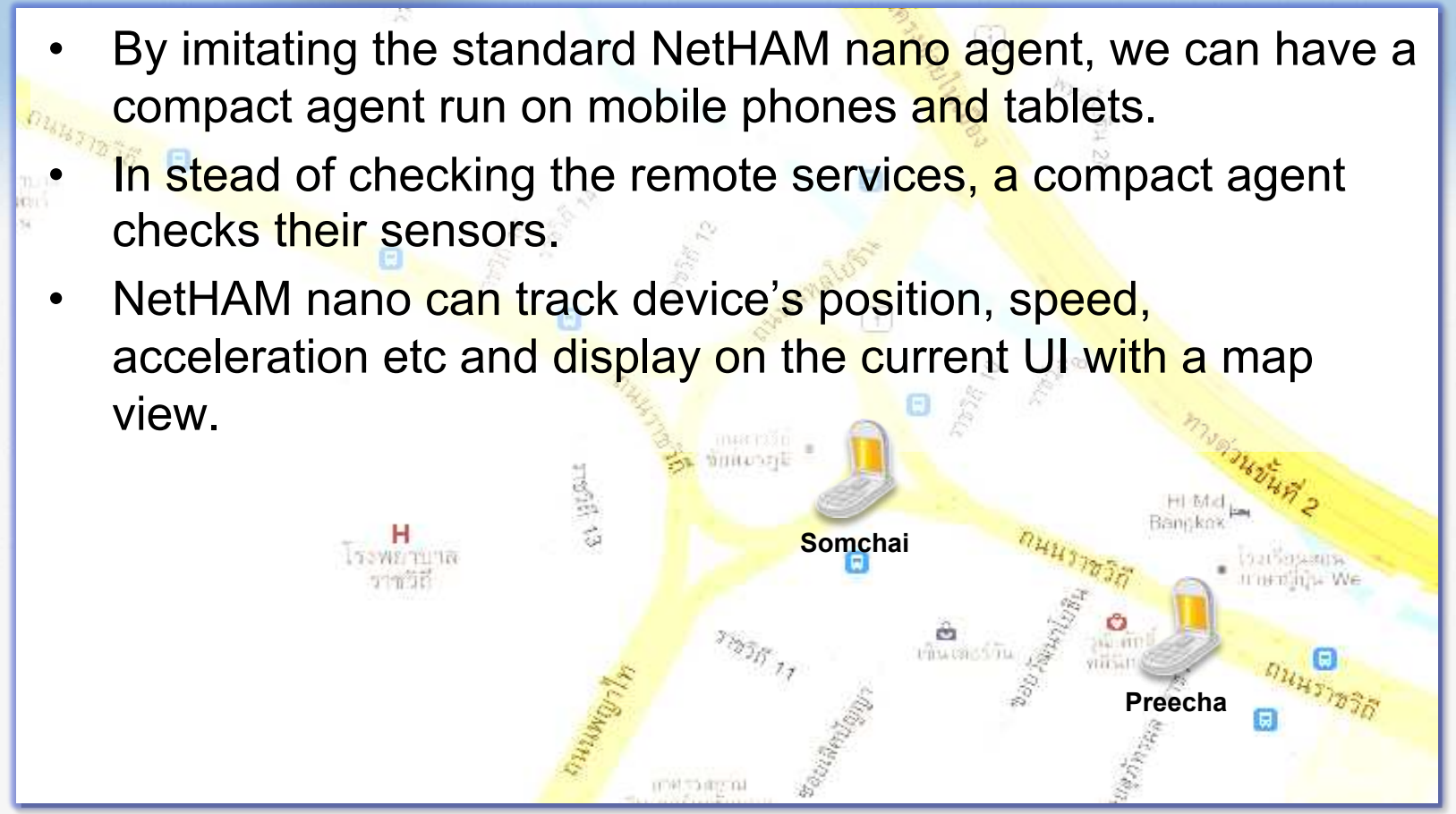
Some use cases :
Mobile applications

- By imitating the standard NetHAM nano agent, we can have a compact agent run on mobile phones and tablets.
- In stead of checking the remote services, a compact agent checks their sensors.
- NetHAM nano can track device's position, speed, acceleration etc and display on the current UI with a map view.



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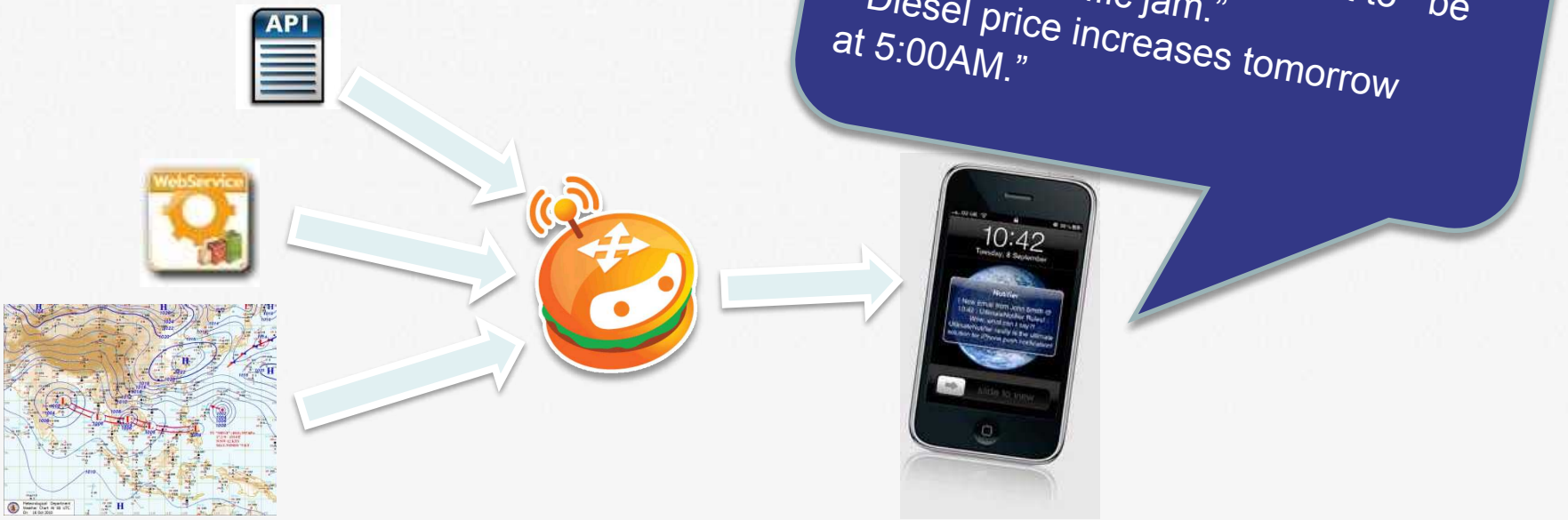
Some use cases :
Information monitoring

NetHAM nano can gather information from several sources and notify users according to their current locations.



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Brainstorming Questions

- Would you be interested in co-creating NetHAM Nano? What role?
  - Tester? Deploying agents? Cloud infra provider? Developer?
- Which areas do you think NetHAM Nano can help with your business?
- Key success factors or risk factors
- Contact nano@netham.in.th

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