SCO Forum 2006

MOBILITY EVERYWHERE >

**Mobile Monitoring of SCO UNIX and Windows
using EdgeClick HipCheck**
Jonathan Schilling & Michael Almond
Session 118

- Be sure to get your Passport stamped.
  - Get your passport stamped
    - By breakout session instructors
    - By exhibitors in the exhibit hall
  - Turn in your Passport
    - After the last breakout session on Wednesday
    - Drawing for great prizes for Wrap-up Session

- Remember to complete the breakout session evaluation form, too

SCO Automates Transactions

3
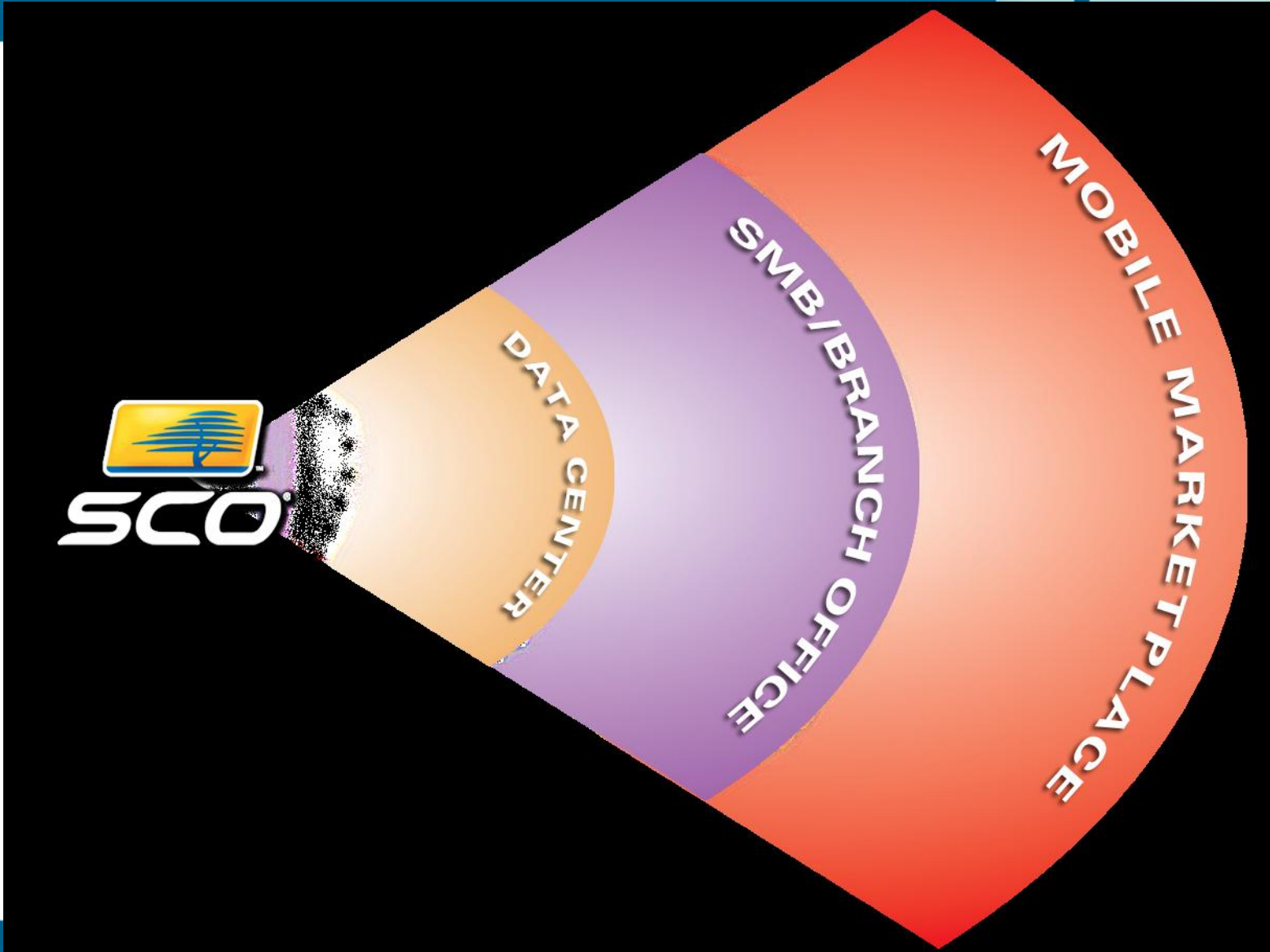
The Me Inc product world
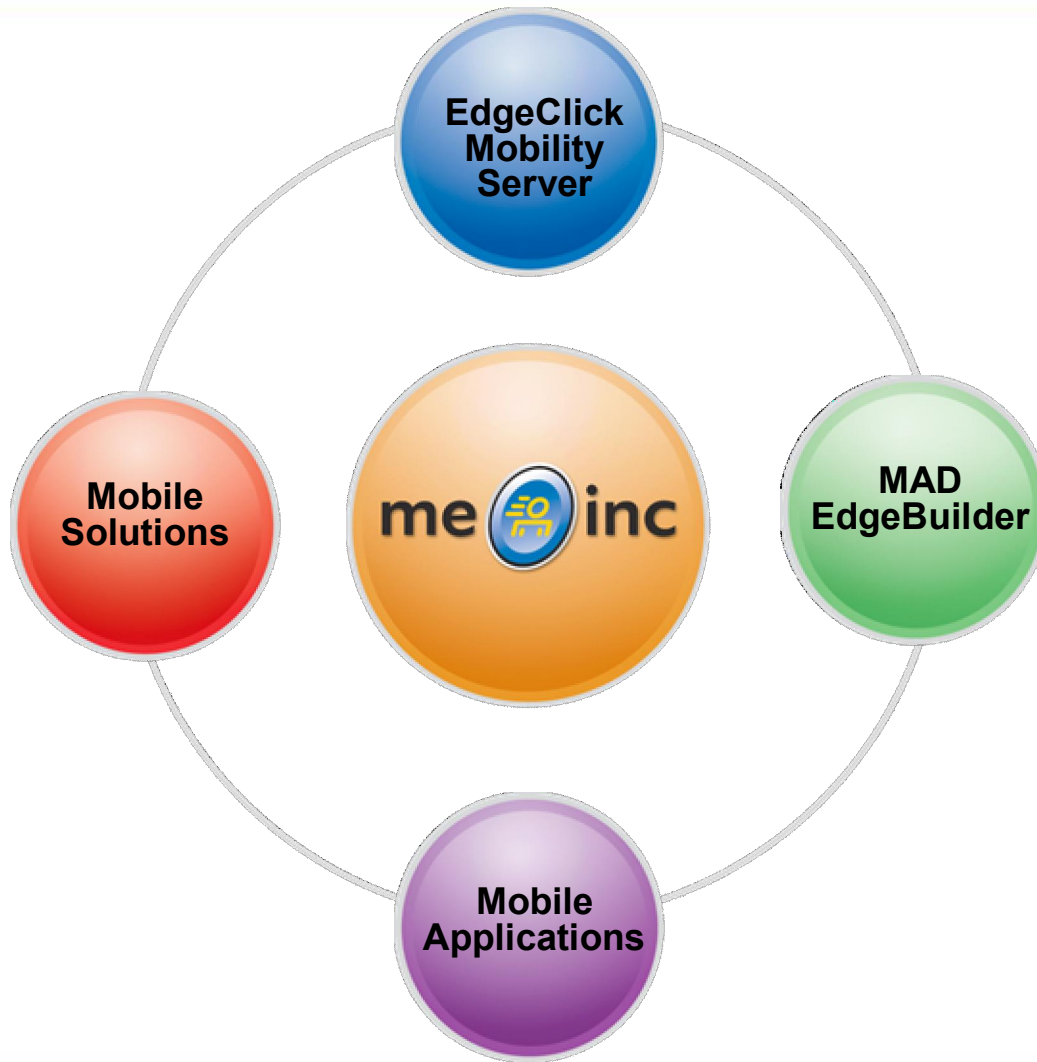
The SCO UNIX product world

- Product and architectural overview
- Installing the components
- Configuring users and systems
- Security
- Client demonstration
- Availability roadmap
- Pricing
- Future directions

Product Overview

- HipCheck is an EdgeClick mobile digital service
- Allows you to monitor the health of your UNIX and Windows systems from your mobile devices
  - View current state
    - processes, users, disks, CPU, memory, printers, services, etc.
  - Set *triggers* to get *alerts* about critical system conditions
    - Service stops running, disk gets low on space, etc.
  - Take corrective *actions*
    - Kill runaway process, restart crashed service, etc.
- Hosting and business model choices
  - HipCheck service may be hosted by SCO – subscription model
  - Or deployed by reseller or end customer – conventional model
- The bridge between SCO's UNIX and mobile product worlds

What all gets monitored?

- Views
  - System info (OS name, OS version, FQDN, IP addr, nbr of cpus, last boot time, up time, current users, current pagefile usage), processes, services, filesystems, cpu usage, memory usage, network usage, user info, printers, print jobs, error events*, hardware info*

- Alerts
  - Process stops running, service starts or stops, filesystem space below specified threshold, printer status change, print jobs

- Actions
  - Kill process, restart/start/stop service, cancel print job, cancel all print jobs, enable/disable printer

* Windows targets only currently

HipCheck Architecture
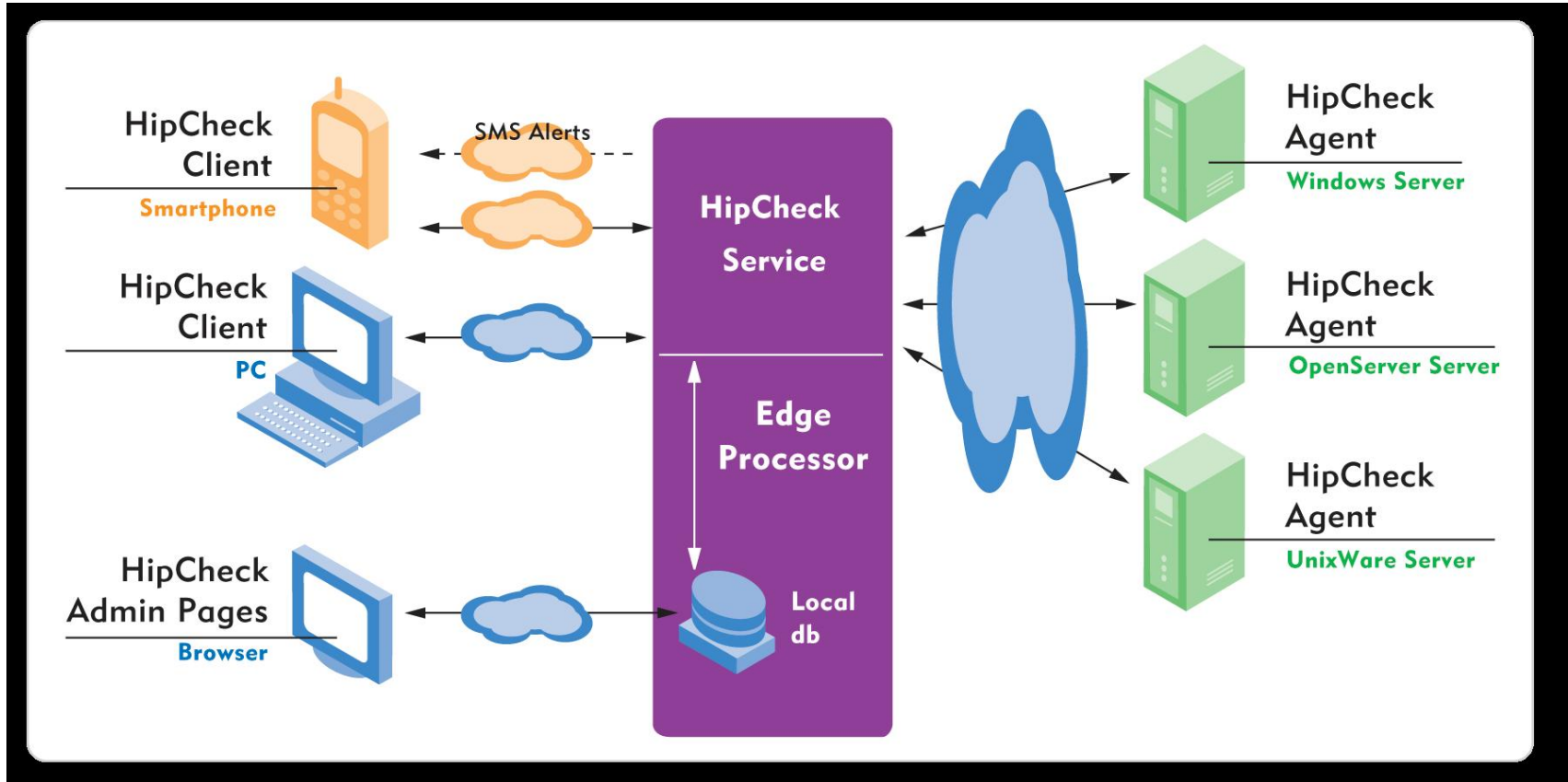
The four components of HipCheck

- ## HipCheck agent
  - Runs on a monitored system in background
  - Responds to view and action requests
  - Periodically checks for triggers, generates alert if detected
- ## HipCheck client
  - Mobile user interface for views, triggers/alerts, actions
- ## HipCheck web admin pages
  - Browser administrator user interface for defining monitored systems and who can do what on them
- ## HipCheck service
  - What runs on the EdgeClick Processor (Mobility Server) and ties all this together

HipCheck supported systems

- HipCheck systems to be monitored
  - Windows Vista (coming)
  - Windows XP Professional (not Home)
  - Windows Server 2003 (all editions: Standard, Enterprise, Datacenter and Web)
  - SCO OpenServer 6.0.0 mp1
  - SCO UnixWare 7.1.4
  - Others are coming …
- HipCheck UI phone client
  - Windows Mobile 5.0 for Pocket PC
  - Windows Mobile for Pocket PC 2003
  - Others are coming …
- HipCheck UI desktop client
  - Windows Vista (coming), XP Home or Pro, 2003 Server, 2000 Server
- HipCheck alerts
  - Any phone that can receive SMS messages

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Installing – Unix Agents

- ## OpenServer 6.0.0 mp1
  - Package in custom format, name HcSCOUA
  - custom -p SCO:HipcheckSCOUnixAgent …

- ## UnixWare 7.1.4
  - Must first apply Tomcat and SCOx Java updates
  - Available ???, install via ???
  - Package in pkgadd format, name HcSCOUA
  - pkgadd –d `pwd`/HcSCOUA.UW714.pkg.ds

- ## Both
  - New svcmon OS command must be installed, to add service status/start/restart/stop semantics to /etc/rc2.d et al.
  - Can define your own application services using template

- ## **Requirements:**
  - The .NET Framework 2.0 must be installed on the system

- ## **Installation:**
  - Launch the *HipcheckWinAgent.msi* file to start the installation.
  - Follow the prompts on the screen to accept the EULA and specify an installation location.
  - The wizard installs the agent on the system and starts the service.

• **Configuration:**

- • The agent runs as a standard Windows service called "HipCheck Agent" and can be stopped/started via the Services control panel.

- • By default the agent listens to HipCheck requests from the client (via the EdgeClick Processor) on port 8081 and checks for alert conditions every 30 seconds.

- • To change the port or poll time, edit these registry keys:
  HKEY_LOCAL_MACHINE\SOFTWARE\The SCO Group\Hipcheck\Port
  HKEY_LOCAL_MACHINE\SOFTWARE\The SCO Group\Hipcheck\PollTime

- ## **Requirements:**
  - The .NET Framework 1.0 or newer must be installed on your desktop
  - The .NET Compact Framework 2.0 must be installed on your mobile device
  - ActiveSync 4.1 must be installed on your desktop and the Windows Mobile device is in the cradle and connected to your computer before launching the installer

Installing – Mobile Client

- Launch the *HipcheckMobile.msi* file to start the installation.

- Follow the prompts on the screen to accept the EULA and specify an installation location.

- The wizard installs the phone installation packages on your desktop and then launches the ActiveSync "Add/Remove Programs" window.

- When prompted to "Install SCO HipCheck using the default application install directory?", click **Yes**. SCO HipCheck is installed on your device.

- When you see "Please check your mobile device screen to see if additional steps are necessary to complete this installation.", click **OK** – there are no additional steps to be performed.

- Click on **Close** to complete the installation.

- A HipCheck icon will be in the Programs folder on the device.

16

- ## **Requirements:**
  - The .NET Framework 2.0 must be installed on your desktop

- ## **Installation:**
  - Launch the *HipcheckWin32Client.msi* file to start the installation.
  - Follow the prompts on the screen to accept the EULA and specify an installation location.
  - The wizard installs the client on the system and creates a "The SCO Group" start menu folder with a HipCheck icon.

17

- ## HipCheck subscribers and groups
  - ### Same as Me Inc subscribers and groups
  - ### Use https://.../meinc/app to administer
- ## HipCheck specific administration
  - ### Use https://.../hipcheck/app
  - ### Task-oriented
    - #### Create/modify monitored system definition
      - Easy to fill out due to drop-down lists
    - #### Set/modify privileges of subscribers for a system
      - Must do, otherwise subscribers won't see any systems!
    - #### Status check on monitored systems
      - Green or red – useful for agent installation check too

18

HipCheck's privilege model

- HipCheck subscribers can be of three levels
  - *View privilege* – can see monitored system, do views, get alerts
  - *Admin privilege* – can set triggers for alerts, take actions
  - *Owner privilege* – can grant privileges to others, see monitored system's root/admin password, delete a monitored system
  - Groups (defined via Me Inc) can be used as well as subscribers

HipCheck Security

- Client to EdgeClick Processor
  - Me Inc subscriber must login and be authenticated
  - Me Inc account must be eligible for HipCheck
  - Communication is over https
- On EdgeClick Processor
  - Administrator must grant access to specific monitored systems
  - Administrator must grant additional access to set alerts or take actions or add other subscribers
  - Administrator must supply root/admin account, password of monitored system
- EdgeClick Processor to Agent
  - Root/admin account, password validated against monitored system by agent on every call
  - Communication is over https with certificates
  - Monitored system is typically protected by firewall

Firewall issues

- The HipCheck EdgeClick Processor runs outside an enterprise's firewall
  - True when hosted by SCO
  - True when deployed by reseller or end customer
- The monitored systems and HipCheck agent run inside an enterprise's firewall
  - True for almost all production situations
  - Cannot access systems' ports 80/8080/etc. directly
- EdgeClick's Proxy Relay Agent Service is the solution
  - Runs on system just inside the enterprise firewall
  - Accepts EdgeClick Processor agent calls through one dedicated firewall opening
  - Forwards them to all the monitored systems

Using the Client – Overview

- **Views**
  - Views allow you to consult HipCheck whenever you want to observe, assess, and analyze system behavior/performance.
  - Views are HipCheck's way of making the information collected by the HipCheck agent available to you on the phone.
  - There are ten views, showing information such as filesystem usage, process lists, and printer queues.
- **Alerts**
  - You can set a variety of alerts, to monitor different conditions on a system.
  - Conditions that can be monitored range from things like a defined value that has been exceeded (like the percentage of hard disk used), to problems like a printer is down.
  - When an alert condition is triggered, the HipCheck agent sends an alert notice to the Edge Processor that sends the alert to the client as an SMS text notification, which describes the system involved and the nature of the problem.
- **Actions**
  - There are a number of actions that you can perform on the system from the phone.
  - You can use these actions to perform basic remote system management.
  - These actions also allow you to correct a condition where an alert is triggered.

- Authenticating a new account
- Selecting a different system to view
- Refreshing the view
- Demonstrate each view
- Demonstrate the details, actions and alerts for each view
- Demonstrate receiving an alert
- Demonstrate the alerts view, clearing a triggered alert, deleting configured alerts

23

Availability roadmap and targets

- HipCheck 1.0.0alpha4 early access – June 20
- 1.0.0alpha5 – was deployed July 18
- Current deployed version is 1.0.0alpha6

- Formal beta will begin August 31
- HipCheck Server GA release – October 1
- HipCheck Hosted Service GA – October 1

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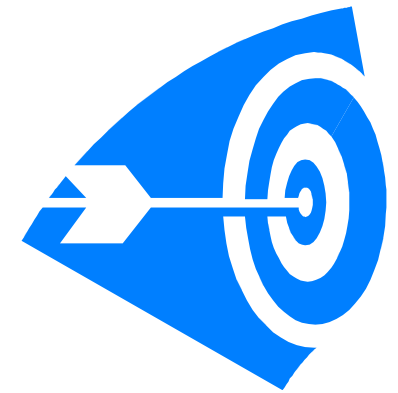
HipCheck Pricing

- HipCheck Pricing will be announced close to the product ship date

- Price will be based primarily on the number of servers being monitored.

- An additional charge will apply for each user after the first.

- Two types of licenses will be available:
  - Access to a hosted HipCheck environment based on a monthly subscription fee
  - Perpetual License to a stand-alone HipCheck Processor
    - For dedication to a single account
    - To set up a hosting service for multiple accounts

Future Directions

- ## More phone clients
  - Java ME client is underway

- ## More OSes to monitor
  - SCO OpenServer 5.0.7 support is close to ready
  - Solaris and some other UNIX OSes support is underway

- ## Older OS versions to monitor?
  - Availability of WMI, web services is gating factor

- ## More OS things to monitor?
  - Always adding functionality, suggestions welcome

- ## Monitor entities besides OSes?
  - "Heartbeat" – genericized HipCheck – is underway

Come see HipCheck in action!

- At the SCO Booth

- At the EdgeClick Lab

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Q & A