HP Integrity NonStop Servers
Time Synchronization Product

Customer Briefing – 03MAY07

Karen Copeland
NonStop Product Manager, HP
Agenda

- Overview
- Schedule
- Time Synchronization capabilities
- Q & A
Introduction

In 2007, HP NonStop will offer a new Time Synchronization product. This product allows customers to synchronize system clocks across NonStop clusters as well as between NonStop and other system types in hybrid environments.
Time Synchronization & NonStop

• **NSX Replacement Needed**
  NSX has provided a time synchronization capability on NonStop, but the product is very old, does not run on Integrity NonStop and reaches EOSL this year. Customers need a replacement product.

• **Replacement for SNTP Lite**
  SNTP Lite was sold out of the Denmark office and is still supported by that office though new copies are not being sold. Customers need a replacement product.

• **A singular purchase option**
  While some HP offered products like ASAP offer system clock synchronization as a feature, customers have told us that they do not want to buy a larger product just to get this one function.
Time Synchronization & NonStop

• Bowden Systems
  Bowden is a NonStop Partner who has offered an NTP and SNTP Time Synchronization Solution to the NonStop market since 2003. Go to: www.bsi2.com for more information.

• Strong customer demand for a solution from HP.
  In spite of having good partners in the marketplace offering time synchronization products, we had an overwhelming amount of interest by customers in a product that would be offered and supported by HP.

• Support for hybrid environments.
  Today more customers are building “hybrid” system configurations that include integrating NonStop with Linux servers. A key requirement was to have a product that can meet the needs of hybrid environments.
HP NonStop Time Synchronization

Why Synchronize Time?

- Correlate events and activity across systems
- Understand data flow
- Understand application behavior
- Understand sequences of operations
- Keeping clocks in sync is a fundamental requirement for managing multiple systems
HP NonStop Time Synchronization

Product Objectives

• Purpose of Time Synch is to address two separate, but related, objectives:
  • Synchronize system clocks within a customer’s network
  • Synchronize system clocks with the outside world

• The first objective is sufficient for many installations; it allows all local system activity to be correlated

• The second objective is more important in cases where local systems interact with outside systems and/or networks
HP NonStop Time Synchronization
Supported Platforms

• NonStop
  • Both S-series (Gxx) and Integrity NonStop (Hxx) are supported
  • Product contains both Guardian and OSS executables

• Windows
  • Windows XP, Windows Server 2003 and VISTA

• Linux
  • RedHat 3 and later
  • Suse 9 and later

• Product capabilities are equivalent on all platforms
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Product Capabilities

- Obtains time from remote time sources/servers and updates local time accordingly (client mode)
- Acts as a time source/server and supplies time to remote systems (server mode)
- Can operate as both a client and a server simultaneously, or can act just as a client or just as a server
- Sub-second accuracy, typically .1 seconds or less
HP NonStop Time Synchronization

Client Mode Features

• Time sources/servers can be:
  • Any system running Time Synch in server mode
  • Any NTP/SNTP server

• Never allows time to move backwards unless configured to do so

• Multi-source mode permits clock averaging from among multiple sources to yield a more accurate reference time

• Configurable offset for system clocks not kept in GMT/UTC
HP NonStop Time Synchronization

Server Mode Features

- Acts as a time source for any system running Time Synch in client mode
- Acts as a time source for any system running an NTP/SNTP client
- Allows systems that do not keep system time in GMT/UTC to act as time sources via configurable offset
HP NonStop Time Synchronization

Additional Features

• Integrates with native event management service on each platform for logging of critical events

• Maintains its own log file of activity

• Can run as a service (Windows) or daemon (Linux)

• TimeCom command interpreter (CI) can be used to dynamically alter the configuration and get status information
For the NonStop environment, Time Synch allows the customer to synchronize system clocks on all NonStop systems. One NonStop System can be designated as the Time Synch Server and all systems can use it as the Time Source.
HP NonStop Time Synchronization
Architecture – NonStop Cluster

Alternatively all systems can be pointed to an Internet NTP Time Source and can synch clocks to that source.
Any system in the cluster can be designated as the Time Server for the cluster.
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HP NonStop Time Synchronization
Architecture – Hybrid Cluster Environments

Any and all systems in the cluster can be directed to a Network Time Source
HP NonStop Time Synchronization
Planned Product Offering

• NonStop Time Synch - NonStop Edition
  • Allows customer to synchronize system clocks for NonStop

• NonStop Time Synch - Linux Edition
  • Allows customer to synchronize system clocks for Linux

• NonStop Time Synch - Windows Edition
  • Allows customer to synchronize system clocks for Windows

• NonStop Time Synch – Bundle
  • Bundles all three of the above products into a single bundle with a discount for purchase
Schedule

May 2007 – Limited BETA Program

We will take the first ten customers who respond with signed BETA Agreements. BETA Packages available now and will be sent to all everyone who expressed interest or sends email to Karen.Copeland@hp.com by May 15th.

July 2007 – FCS
NonStop Time Synchronization

Q & A