



FIS InfoHub™

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What is FIS InfoHub?



- Operational monitoring of GT.M environments via SNMP

Design Considerations



- Challenges

- A GT.M environment can potentially generate voluminous operational data
 - syslog, file headers, replication log files...
- Each GT.M environment generates its own data
- There are many GT.M releases & GT.M is built monolithically
 - Functionality added to a GT.M release is only available to that release and subsequent releases
 - Production sites often don't upgrade for years ("the curse of robustness")

- Opportunities

- GT.M data is easily accessed for monitoring
 - Customers routinely monitor GT.M operationally via Tivoli, UniCenter, Nagios, and more
- GT.M is excellent for storing and retrieving information
- GT.M is a platform for developing applications

- Conclusion

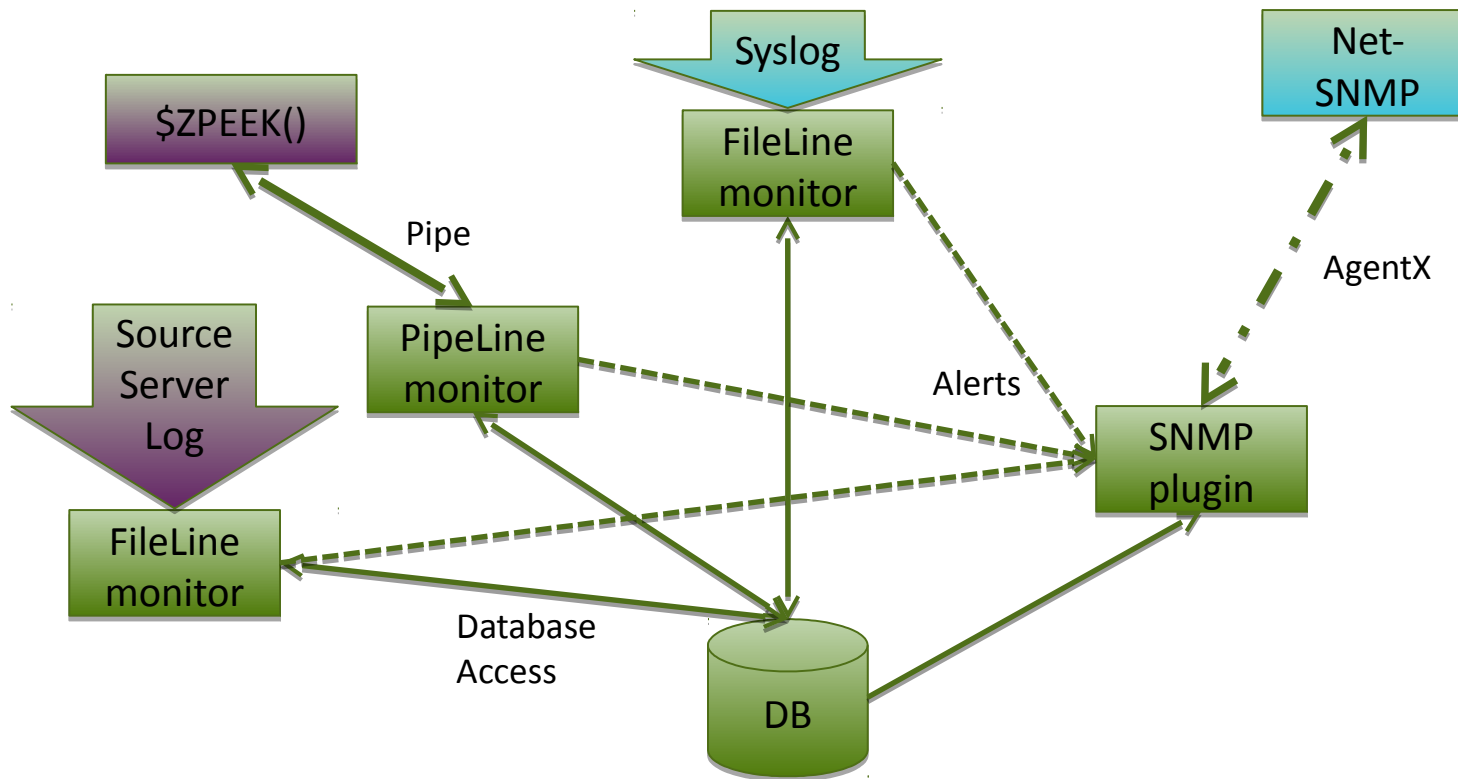
- Monitoring a GT.M environment best implemented by information gathering external to that environment of information produced by it

What is FIS InfoHub?

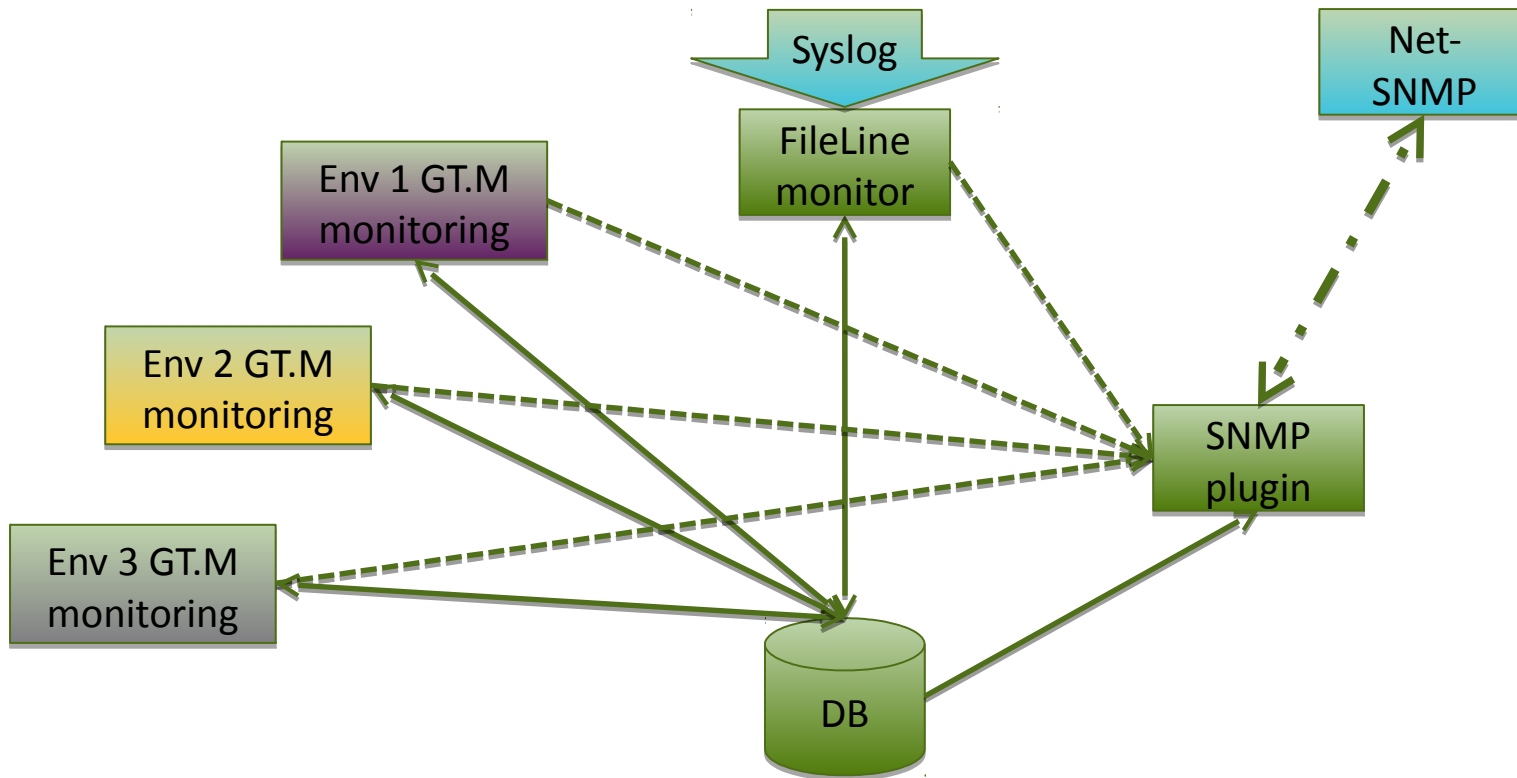


- An application written in GT.M
 - Requires minimum level of GT.M V6.0-002 to run
- To monitor GT.M environments
 - InfoHub runs as a separate application that does not need to be an integral part of a monitored environment – monitored environment can be
 - A different environment using the same GT.M release (different \$gtmgbldir, \$gtmroutines, \$gtm_repl_Instance, etc.)
 - A different GT.M release (different \$gtm_dist), i.e., InfoHub can be adapted to monitor prior GT.M releases
 - Can also share database with application as long as there is no name conflict with ^InfoHub* globals
 - InfoHub can also be configured to monitor and report on its own operation – it looks like any GT.M environment
- To generate alerts from monitored information
- And more...
 - As we will see later

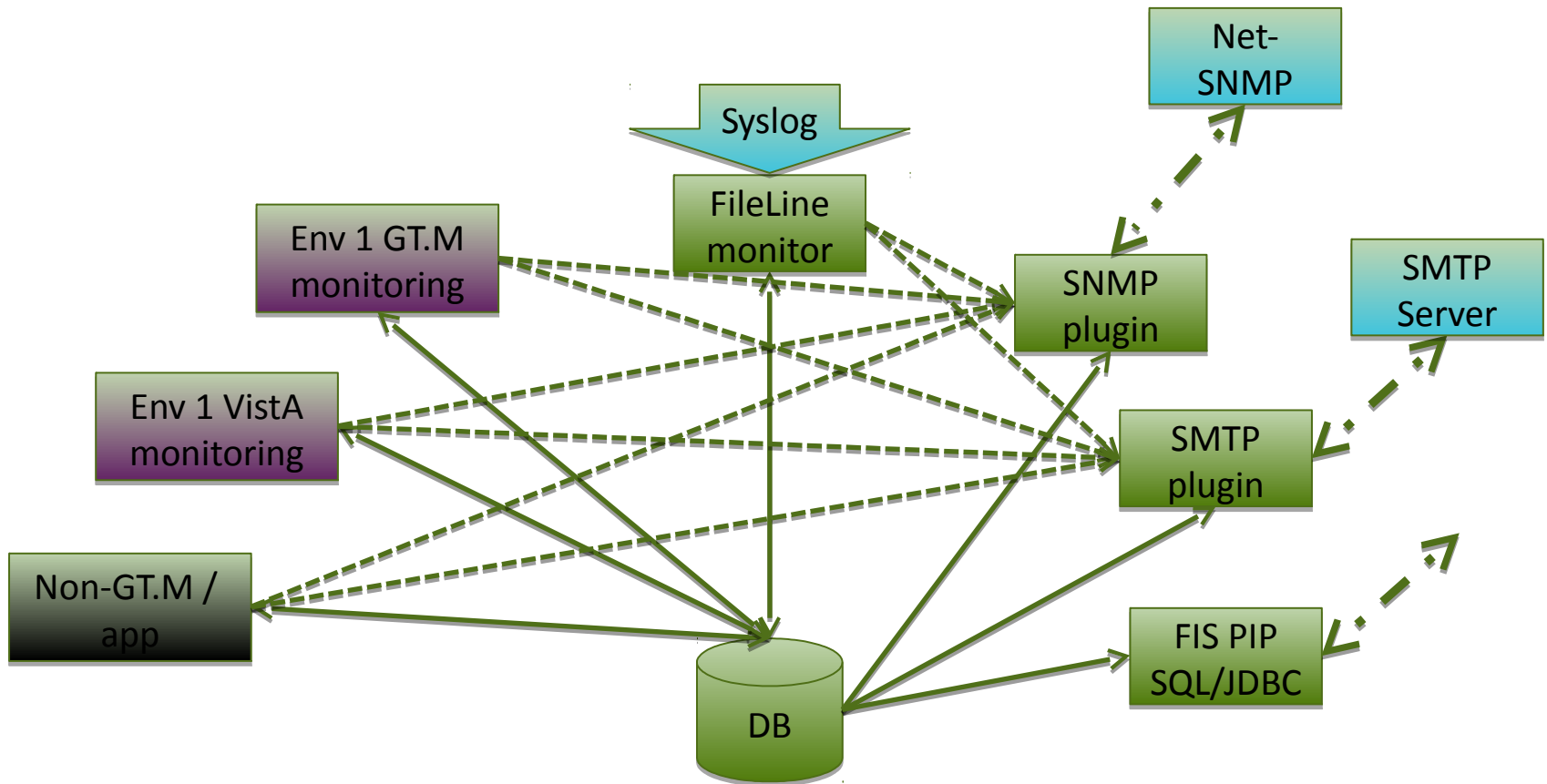
Monitoring – One Environment



Monitoring – Multiple Environments



Monitoring – Future Possibilities*



* Usual caveat: it is the business of the future to be uncertain

What is FIS InfoHub (redux)?



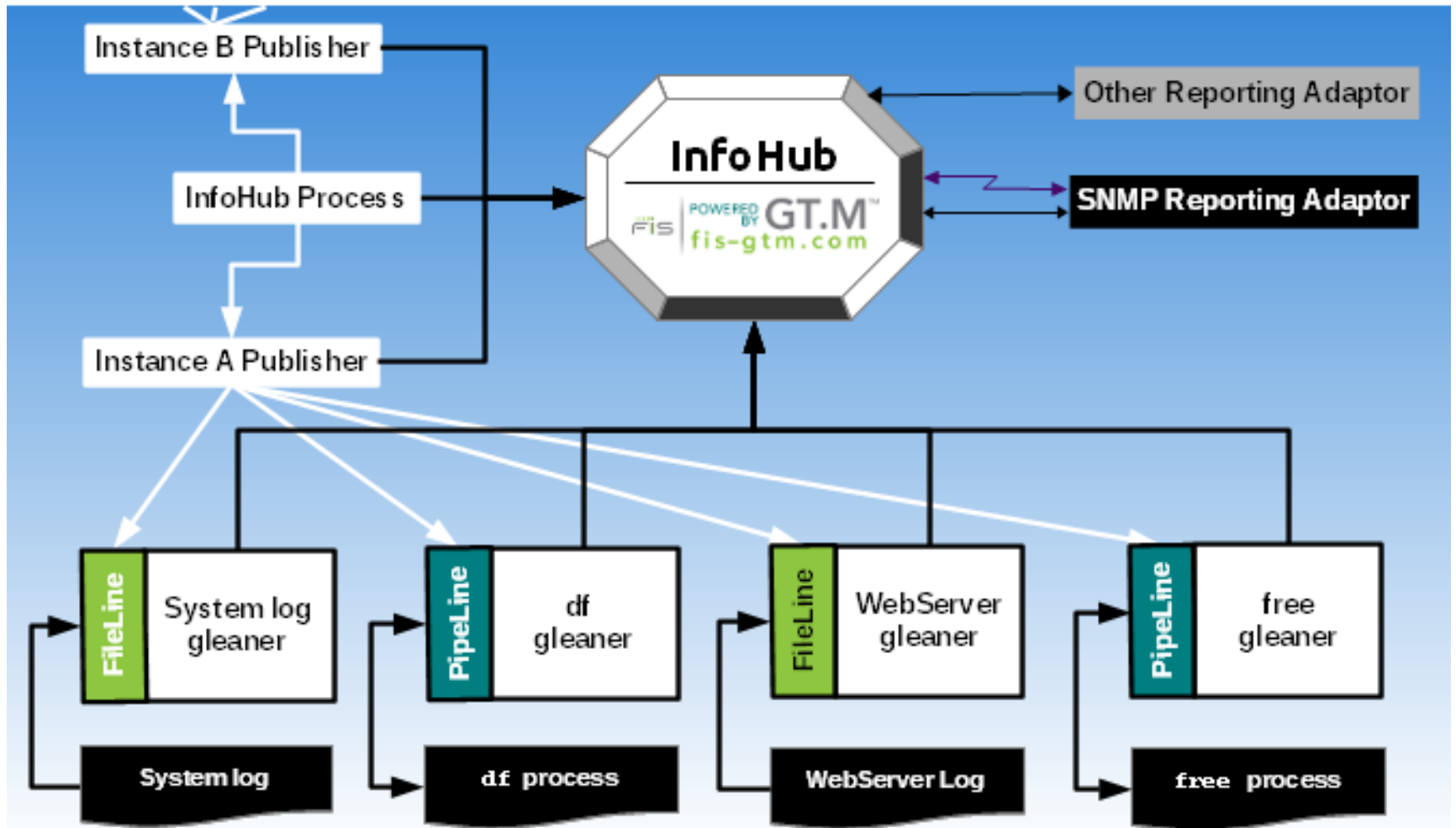
- An application written in GT.M
 - InfoHub exploits capabilities of GT.M, e.g., remote monitoring via database replication (but not remote alerts, at least initially)
- *Data-centric architecture* – content-agnostic container for extended storage of time series data
 - Includes reference implementation to monitor GT.M instances as well as system uptime and log file monitoring – use as sample to monitor other data
- *Well defined & documented schema* allows for multiple, flexible plug-ins for data access – techniques for monitoring, alerts, and presentation are not universal and evolve continuously
 - Includes plug-in to monitor & generate alerts via SNMP – use as sample to create your own plug-ins
- Potential for use in information warehousing, forensics, etc.

InfoHub Components



- InfoHub DB: Stores information & manages interaction with Reporting Adaptors
- InfoHub Process: Manages monitoring framework
- Publisher Process: Manages a set of related xLine (PipeLine or FileLine) processes to gather, process, and file data from Publisher's domain
 - FileLine Process: Monitors a file using FOLLOW deviceparameter; handle file renaming, removal and creation
 - PipeLine Process: Monitors a process using a PIPE device
- Subscriber: Receiver for notification when conditions subscribed to are met
- Subscription: Condition that when met generates notification(s) to Subscriber(s)
- Reporting Adaptor: Retrieves information from the InfoHub database (^InfoHubInfo); may, or may not, also be a Subscriber.
- Gleaner: Routine invoked by an xLine process; pairs monitored information with the relevant InfoDict Item ID(s) and returns those pairs to the xLine process for filing
- Plug-in: Interfaces to the InfoHub

The Big Picture



What is InfoHub (one last time)?



- A general-purpose tool for general purpose monitoring and alert generating based on time-varying numeric and symbolic data that can be simultaneously broad (large numbers of sources) and deep (extended durations)

Links



- Home Page - <http://www.fisglobal.com/products-technologyplatforms-infohub>
- Documentation – go to GT.M home page (<http://fis-gtm.com>) and click on the User Documentation tab
- Software
 - Any Day Now™ (going through final code reviews)
 - To be released at Source Forge (under <http://sourceforge.net/projects/fis-gtm/files/Applications/InfoHub/>)
 - Under the same FOSS license as GT.M



Thank You

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