GEORGIA PUBLIC LIBRARY SERVICE

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What is PINES?

- A consortium of 46 Georgia public library systems

- 270 facilities and bookmobiles

- A common library automation system

- A union database of 8.8 million books & other items

- A shared patron database of about 1.7 million active PINES cardholders from all 159 Georgia counties

PINES Current and Future Members

PINES Public Library Systems
- ■ Current
- ■ Coming Soon
- □ Non-PINES

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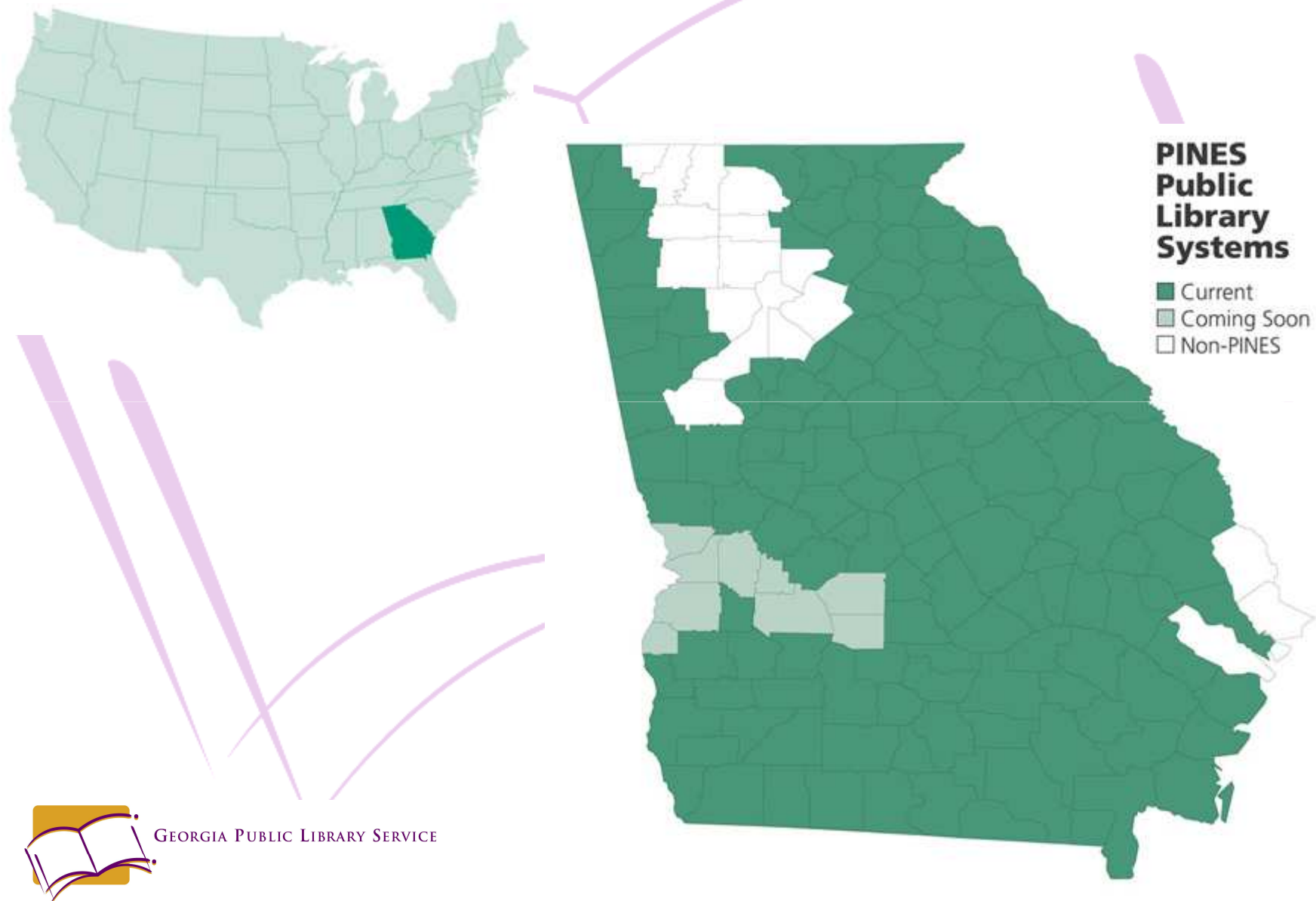
About PINES

- The PINES library card is free to any resident of Georgia, and may be obtained from any PINES library.

- The PINES library card can be used at any PINES facility as if at the home library.

- Materials may be returned to any PINES library.

About PINES

- Users may request materials delivered from any PINES library to local library, at no charge.
- New books are protected from intra-PINES loans for 6 months
- In FY07, more than 540,000 intra-PINES loans, as compared with just 6000 in FY00.
- A statewide courier service began in October 2004 with service to all headquarters libraries in PINES.

About PINES

- PINES libraries agree to a common set of policies and procedures--patrons have a consistent experience at any PINES library.

- PINES libraries agree to common fine structures.

- Fines and fees may be paid at any PINES library.

- Overdue notices processed centrally for all member libraries

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Benefits for Libraries

- PINES is centrally administered.

- Participating systems have automation costs paid; their contribution is sharing of collections.

- PINES provides training in regional locations convenient to member libraries.

- Centralized helpdesk and support for software and common policies.

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Benefits for Georgia

Cost effectiveness:

- Estimate to replace automation systems in all PINES libraries: $15 million
- Annual maintenance for
- Individual automation systems $ 5 million

- **PINES annual operations:**   **$1.6 million**

  - Approximately $1.00 per registered customer
  - About 1/10 of the cost of purchasing individual automation systems

What Do Patrons Like Best About PINES?

Comments from the PINES User Survey

- It is so easy to use. I love Evergreen. I can not imagine life without it!

- I love being able to get books from anywhere--especially if my library doesn't have what I'm looking for.

- I can login with my user name and not a long user number. I love the bookbags. I appreciate the status column for books on hold. I really appreciate the emails and phone calls coming in at the same time.

- You can place a book on hold from another library in the PINES system and have it delivered to your closest library for pick up--LOVE THAT!!!

- I no longer have a local library with just 30,000 books in it. With PINES, I now have a library with several million books.

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Radical or Just Plain Crazy?
A Crossroads for PINES

- Initial 5-year software contract for PINES ended in June 2005.

- 2003-2004: PINES staff conducted a comprehensive survey of the library automation marketplace

- Is the software driving the policy/procedure, or is the policy/procedure driving the software?

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What Do PINES Libraries Need?

From the PINES Staff Perspective:

- Ease of use for customers
- Enterprise-class relational database
- Scalability (ability to grow with PINES)
- Flexibility
- Data security
- Reports designed to correspond to annual reporting requirements

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What Do PINES Libraries Need?

- Focus Groups

- "Pretend it's magic"

- Incredible buy-in from our members

- Participation from library staff throughout the development process

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Evergreen

- Evergreen Integrated Library System was developed using Open Source software.

- Software development began in June 2004

- All PINES libraries migrated to Evergreen software on September 5, 2006.

- Evergreen debuted with Online Catalog, Circulation, Cataloging, and Reports.

- Transactions, customer records, and online catalog records were migrated from the former system.

Evergreen Features

- Search capabilities similar to popular commercial websites

- Google-like spell-checking and search suggestions

- Added content, including book cover images, reviews, and excerpts

- Scalability in anticipation of PINES growth

- Enhanced security features to keep customer information confidential

- Customer empowerment to manage own accounts

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Evergreen
Core Technologies

- Database: Postgresql

- Logic/glue languages: C and Perl

- Webserver: Apache mod_perl

- Server operating system: Linux

- Server hardware: x86-64

- Messaging core: Jabber

- Client side software: XUL
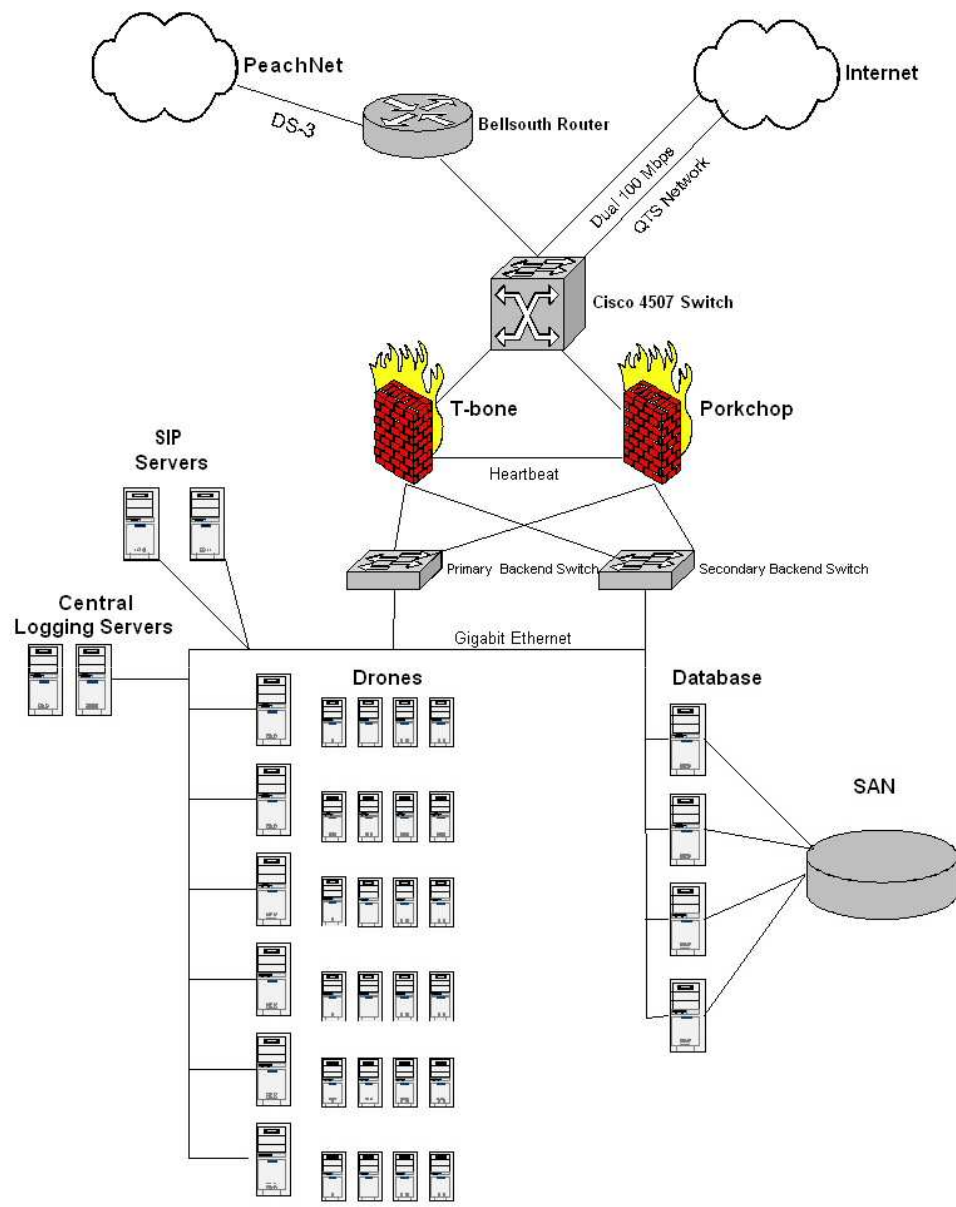
Evergreen Design

- **Cost-effective**: server software is designed to run on inexpensive commodity hardware with an open source operating system.

- **Reliable**: the software is designed to run in a clustered environment, giving it enterprise-level high availability and failover.

- **Flexible**: Evergreen's staff client is cross-platform (Windows, Mac, Linux).

Evergreen Design

- OpenSearch and unAPI, and RESTful interfaces to retrieve records are supported

- Several different ways to access the entire ILS API set

  XML-RPC
  RESTful XML
  JSON-over-HTTP
  JSON-over-XMPP (aka Jabber)

- SIP2 available for circ, renewal, authentication and access levels

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PeachNet

Internet

DS-3

Bellsouth Router

Dual 100 Mbps
QTS Network

Cisco 4507 Switch

T-bone

Porkchop

Heartbeat

SIP
Servers

Primary Backend Switch

Secondary Backend Switch

Central
Logging Servers

Gigabit Ethernet

Drones

Database

SAN

Hindsight is 20/20

- More Money

- More Time

- More Staff

Hindsight is 20/20

- Day one load challenges.

- In order to troubleshoot issues, we turned logging levels up on the production system. The sheer amount of log traffic swamped the central logger servers, and in turn, made finding pertinent log entries extremely difficult.

Hindsight is 20/20

- Too much work over the Labor Day weekend left us exhausted for go-live morning, when we needed to be sharpest.

- GPLS Helpdesk position was vacant on go-live day.

- No Quality Assurance Engineer

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What We Did Right

- We listened, and designed the system based on input from library staff and patrons. This has created a sense of ownership and pride in the system as it developed.

- We sent our patron data to Unique Management Services for clean up. This made the job of importing the patron data much easier.

What We Did Right

- We performed multiple dry-run migrations. This was useful in ensuring our data migration plan was sound from A to Z. Library Staff was involved at every step.

- Staff from all libraries were involved in testing the alpha and beta releases; we learned a lot here about what would work on the front lines.

- We involved staff around the state in documentation and training.

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Where Do We Go from Here?

- More self-service options, including online bill pay for customers

- Ranking system for enhancements and prioritizing bug fixes

- Develop a children's web-based catalog

- Enhanced links with GALILEO

- Cooperative projects with university system libraries and OIIT staff for digital library projects

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Where Do We Go from Here?

- Develop the Acquisitions & Serials modules— Partnership with University of Windsor

- Work with partners on protocols to share information with other automation systems

- NCIP profiles coming soon

- Integration of other open source modules, such as ReservesDirect from Emory and XC from University of Rochester

- NCIP profiles coming soon

Technology Adoption Lifecycle

from ***Crossing the Chasm***, Geoffrey Moore

- Innovators

- Early adopters

- Early majority

- Late majority

- Laggards

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Where Do We Go from Here?

- Devote resources to making Evergreen more of a community project than a GPLS project

- Conversations and partnerships with libraries worldwide

- Funding Possibilities and Partnerships

- Evergreen Foundation

- Evergreen User's Group

PINES online catalog: **www.gapines.org**

Evergreen software development:

www.open-ils.org

Equinox Software, Inc:

esilibrary.com

Extra slides for further information or questions

Where Do We Go from Here?

Staffing Pre-July, 2007

- Director
- Program Manager
- Public Services Coordinator
- Cataloging Coordinator
- Administrative Assistant
- 4 programmers

Yes, that's only 9….

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Where Do We Go from Here?

Current and Planned Staffing

Production

- Director

- Program Manager

- Public Services Coordinator

- Cataloging Coordinator

- Administrative Assistant

- System Administrator (Currently Advertised)

- Software Development Manager (Job Description Awaiting Approval)

Development

- Equinox Software Inc.

- Volunteer Developers from Around the World

QA Engineer

Budget and Funding

DIVISION	EXPENSE	07	08
PINES	Daily courier Service to 46 PINES library system headquarters, M-F	207,000.00	325,000.00
	Server cluster housing, electric, redundant connections	106,560.00	100,000.00
	Equinox software development and support services	0.00	350,000.00
	Georgia State University (server hosting)	101,000.00	0.00
	Sirsi	197,500.00	0.00
	Sun	55,575.00	0.00
	Overdue notices	272,136.00	310,000.00
	Staff Travel	23,136.00	20,000.00
	Contracts (special programming, etc.)	34,597.00	15,000.00
	CCG	200,000.00	0.00
	Other Operating Expenses	58,318.00	60,000.00
	Supplies	1,451.00	60,000.00
	Equipment	75,941.00	80,000.00
	Total	**1,333,214.00**	**1,320,000.00**

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HTTP OpenSRF Gateway
Jabber Server
OpenSRF Jabber Router

HTTP Traffic

HTTP Client Data

HTTP Load
Balancer

Jabber
Connection

One Server Brick

Single Application
Server

DB Connection

Database Pool
Interface

Master DB

Slave DB