

Automation of Site Configuration Management

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LIS497-Site Config

Service Attributes

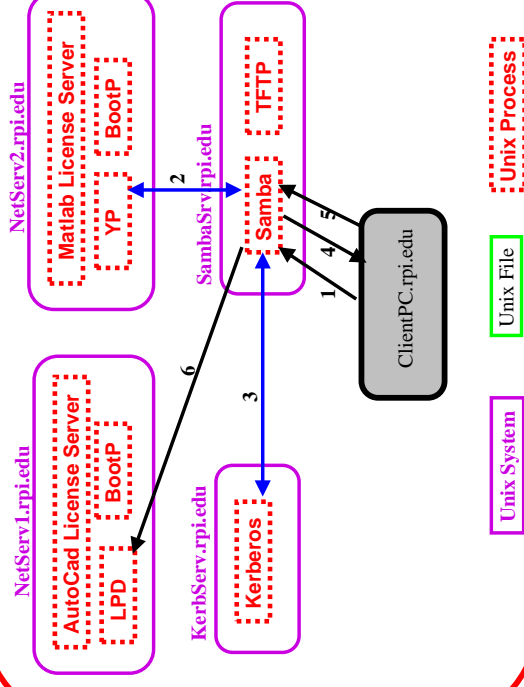
- **Service Name**
 - Detailed description.
- **Service Type**
- **Priority**
- **Responsible Person**
 - Primary, Secondary technical support contacts
 - Main user, owner, user support, etc.
- **Service Dependencies**
 - Type of dependency
- **Documentation**
 - Installation, troubleshooting, general user manuals, etc
 - Review Date for each document.
- **Servers**
- **Server Detection Methods**
- **Review Date and Comments**

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Servers and Services



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LIS497-Site Config

Server Attributes

- **Machine Attributes**
 - OS, Hardware Config, location, name, IP address
- **Instance Status**
- **Detection Method and Date.**
- **Verified Date**
 - And the name of verifier!
- **Configuration Verification Date.**
- **Service Tested Date.**
- **List of Clients**
 - And when they were detected.
- **Review Date and Comments**

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LIS497-Site Config

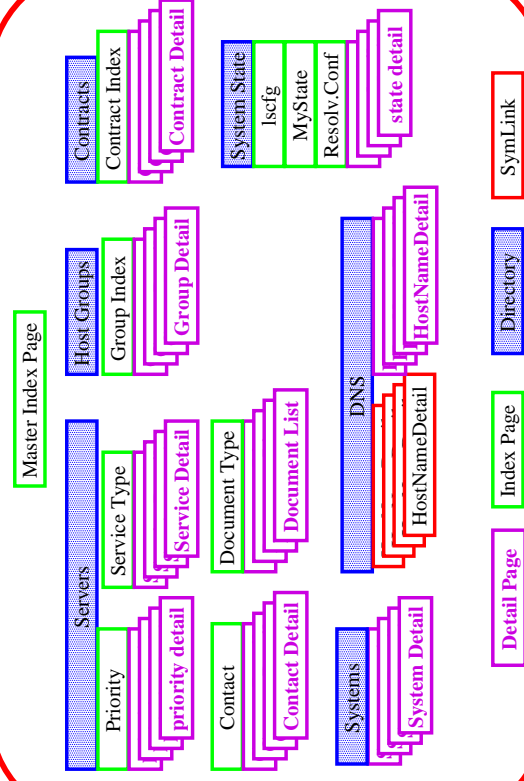
Automatic Detection

- **Global Detection**
 - Can run anywhere, and detect the existence (or intention) of a service instance.
 - Works by examining config files, queries to master databases.
 - Not intended to "scan" networks.
- **Server Detection**
 - Runs on server machine - looks for config files, log files, running processes!
- **Client Detection**
 - Runs on client machines, looks in config files, etc.
- **"Discovered" Service Instances need to be verified.**
 - Need Sanity Check by sys admin who is supposed to know what is going on.

Inputs (Oracle Forms)

- **Service Form**
 - Documents
 - Contacts
 - Links
 - Methods
- **Server Form**
- **Phone Directory Maintenance Forms**
- **Hostmaster/CUSSP forms**
- **Mystate updates**

Outputs - Web Tree



Extensive Cross Linking

- **Person's Name - Current phone number and email address.**
 - email is a **mailto:** url. If they have a web page, their name is linked to that.
- **Hostname - link to that systems page.**
- **Mystate info**
 - Header entries link to the appropriate index page
 - detail entries link to the detail summary (to see who ELSE has that value)
- **Priority**
 - Heading to Priority index page
 - Value to page of that priority value
- **Service Type - Other services of that type**
- **Documents**
 - Document reference itself linked when possible
 - Document type links to document index of that type.

Service Sample Page (RPI.EDU DNS)

Comment on the format and layout of these pages, as well as ideas for improvements, should be directed to finkej@rpi.edu. Page generated at: Wed Oct 22 10:44:18 1997

General Information

Provide internet domain name and address service for the RPLEDU domain.

- **Priority:** Critical
- **Classification:** Domain Name Service
- **Primary Contacts:** David K Hudson hudsod@rpi.edu 8836
- **Secondary Contacts:** Jon Finke jfinke@rpi.edu 8185

Servers providing this service

- netserv1.its.rpi.edu
- Current Status is: Production
- Verified by: Jon Finke jfinke@rpi.edu 8185

Services required by this service

- Direct Dependence Servers
- Simon - Administrator (Hostmaster data stored in Simon)

Documentation

Troubleshooting
file: [dept/its/1/docs/bind/overview](file:///dept/its/1/docs/bind/overview)
References
<http://www.artis.com/~simmons/dns>

Server Sample Page (netserv1)

Comment on the format and layout of these pages, as well as ideas for improvements, should be directed to finkej@rpi.edu. Page generated at: Wed Oct 22 10:33:20 1997

System Info

- Location: VCC Machine Room
- Hardware: Sun SPARC4
- SN: 605F00E7

Service Info

- **Priority:** Critical
- **RPLEDU Domain Name Service** Status: Production
- **YP Server for RCS** Status: Production
- **Priority:** High
- **PrintServer** Status: Production

DNS Info for netserv1.its.rpi.edu

IP Address |28.113.1.5

mystate

Item	Value	Extra	VerifyDt	InitDt
Model	SPARCstation 4	/usr/etc/devinfo	22-Oct-97	18-Feb-97
arch	sun4m	/bin/arch -k	22-Oct-97	18-Feb-97

Consistency Checks

- **Every Detected Server Instance has been Verified**
- **Every Critical/High prio service has a trouble shooting doc**
 - This report goes to the primary contact for the service.
- **Every Service has a primary contact.**
 - And that the contact is active (in phone directory)
- **Flags services scheduled for a review.**
 - And servers that are due for a review
 - Documents that are scheduled for a review.
- **Validate document links where possible.**
- **Flag Application(Services) without**
 - User Document Reference
 - Getting Started Document Reference
 - Primary Support Contact name.

Expanding Role

- **Extend "Services" to include all support applications.**
- **Even without "Servers", the help desk still needs to know:**
 - Location and type of documents.
 - Name, phone and email of support specialists for that product.
 - Support Level (priority).
- **Make Services pages publically available for browsing.**
- **Get other departments in the division to enter their services and servers.**
- **Replace (or automatically maintain) all "Task Area" lists, "Support Person" lists, etc.**
- **Hardware Inventory.**

Future Directions

- Full Production!
- Search pages (in addition to index pages).
- Real Time update of pages.
- Integration with Trouble Reporting/Tracking DB.
- Make input forms available via the Web.
- Publically accessible pages.
- Expand use of detection methods.
- Integrate with diagnostic tools (Netview, Pong, etc).
- Location pages and index (and search by location)
- Add Service Contract info (and expiration dates!)
 - And Generate lists for renewal.
- Other output formats (such as spreadsheet).

Automation of Site Configuration Management

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<http://www.rpi.edu/~finkej/Papers.html>

Demo version available:

<http://www.rpi.edu/~finkej/SiteConf.html>