

## ALICE SUMMARY

### **What:**

ALICE (Advanced Linux Internet Communication Environment) is a software solution incorporating a Mail Server with AntiVirus, AntiSpam, Filtering and Web Mail modules, Web Server, Firewall, and Proxy Server implementing user/time/URI based rules, IPSEC VPN Server, DNS, and DHCP Server. ALICE is also capable of advanced routing between various interfaces and networks.

In short, ALICE bundles all the software one would need to enable a network to connect to the Internet while keeping the private network secure.

### **Why:**

A normal installation of all the software components of ALICE would require individual deployment, setup, administration and maintenance of each of the component systems. This would need dedicated skilled personnel at each location such components are installed. Further each component would require sufficient user licenses of the OS and the software component. The total cost of all the components if deployed individually will be at least 5-6 times that of deploying a single ALICE.

ALICE is an integrated software solution with all its components interoperating seamlessly. This enables integrated administration of all the components possibly even remotely.

### **Who:**

Retort Software Pvt Ltd is a company promoted by a group of alumni of IIT Bombay focused on developing software to deploy complex systems for easy use by lay persons.

### **Advantages:**

1. One Stop solution.
2. Single Vendor interaction.
3. Bundled with operating system so that separate licenses are not required
4. Ease of deployment and simplified administration reducing administrative overheads.
5. Remote Administration eliminating need for skilled manpower at remote locations.
6. Low to nil user learning curve as users continue to use their favorite front end software.
7. Automatic updates to apply patches to the Operating System and other server software
8. Highly scalable. Has been tested in live setup with over 11000 users for email and proxy users.

### **Optional Web Server:**

- Ready to use web server (apache httpd/tomcat)
- php / perl etc for dynamic pages. Optional support for jsp pages.
- Optional robust RDBMS (MySQL/Postgresql) for your database needs.
- Optional management of SSL keys for https access

### **Optional Firewall and Proxy Server:**

- A "Deny by Default" firewall to ensure only allowed traffic gets through
- Intuitive handling to enable administration by lay persons.
- Capable of SNAT and DNAT
- User based, time based, URI based and source IP based rules to allow or deny access.
- Create and maintain lists of users allowed/denied browsing specific sites at given times

**Optional DNS:**

- Full functional DNS capable of hosting any number of domains
- Internal and External views to provide appropriate replies to queries from the intranet and internet.

**Optional DHCP Server:**

- A DHCP server to easily manage and configure network settings on LAN systems.
- Allow automatic detection of network and proxy settings.

**LDAP based Directory Server:**

- A LDAP server for maintaining the Global and Private Address books
- Integratable for implementation of single sign-on applications

**Optional Mail Server:**

- SMTP, POP, IMAP, SMARTTLS server. Optional SSMTP, SPOP3, SIMAP server
- SMTP authentication for added reliability
- AntiVirus & AntiSpam modules optionally available
- Optional setup of DKIM signature of mails.
- Support for setup of SPF, DKIM, DMARC etc.
- Feature rich Web Mail module.
- System Wide and User Specific mail filtering
  - Possible to set vacation messages
  - Keep copies (archive) of all mails passing through the server.
  - Automatically add signature/disclaimer to all mails sent to non-local recipients
  - Extract and keep single copy of large attachments on the server.

**Optional Cluster Server:**

- Setup Alice in redundant and highly available configurations by storing mail data on third party iSCSI IP SAN Server.
- Active/Active and Active/Passive setups possible.

**Optional File Server:**

- Optional file server implementing per user and per group folders.
- Optional encryption of files stored. Transparent to the user accessing through Alice.

**Optional Subversion Repository:**

- svn repository with WebDAV interface. Accessible through any third party client like TortoiseSVN
- User authenticated access.
- Granular access to projects based on user and group privileges defined.
- On disk backup
- Optional consultancy on Best practices and layout.
- Optional scripting/web interface for customized activities

**Optional Calendar Server:**

- Setup your private calendar server and synchronize with user's iOS (iPhone/iPad), Android (4.2+) devices and Outlook calendars using CALDAV. (Requires third party software for Android and Outlook)

- Fully accessible using WebMail and Thunderbird
- Share/Delegate calendar operation to other user. Set permission to View Only/Modify/Delete etc.
- Automatic email to invitees.
- Reminders.
- Multiple calendars
- Resource booking/availability etc.

**Optional Reverse Proxy Server:**

- Use the proxy server as an accelerator for your website so that partially dynamic sites can be accelerated.
- Reduce load on web server
- Set refresh time per object or object patterns

**Optional IPSEC VPN Server:**

- Create encrypted tunnels between networks over the internet.
- Seamless secure access between the connected networks.

**Optional Database Server:**

- ODBC/JDBC connectivity

**Optional Configuration Synchronizer:**

- Multiple ALICES may be implemented across various locations and user privileges may be synchronized across them
- This allows traveling users to access internet and mail resources as per their privileges at their “home base” location.
- In combination with DHCP and DNS modules, traveling users can be online without requiring any configuration and/or user settings when they travel to other offices of the organization.

**Multiple Administrators:**

- Access control to different administrators may be granted as read-only, restricted and full access.
- Allows tracking of changes and fixing responsibility for each change.

**Partial Client List**

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|------------------------------------|------------------------|
| • Saraswat Bank                    | • Skil Group           |
| • Tata Power Strategic Electronics | • PeopleWorks          |
| • State Bank of India, London      | • M P Chitale          |
| • Saraswat Infotech                | • Skil Group           |
| • Apna Bank                        | • Autocal Calibrations |
| • Cross Domain Solutions           | • ROI Net Solutions    |
| • Safe Express                     | • Exdion               |
| • Mindteck Ltd                     | • Kuka Automation      |

