



ASL3 and ColMon

Willem AC0KQ
NerdFest 2025

with lots of hard work
by **Chris K0SWE**

ColMon

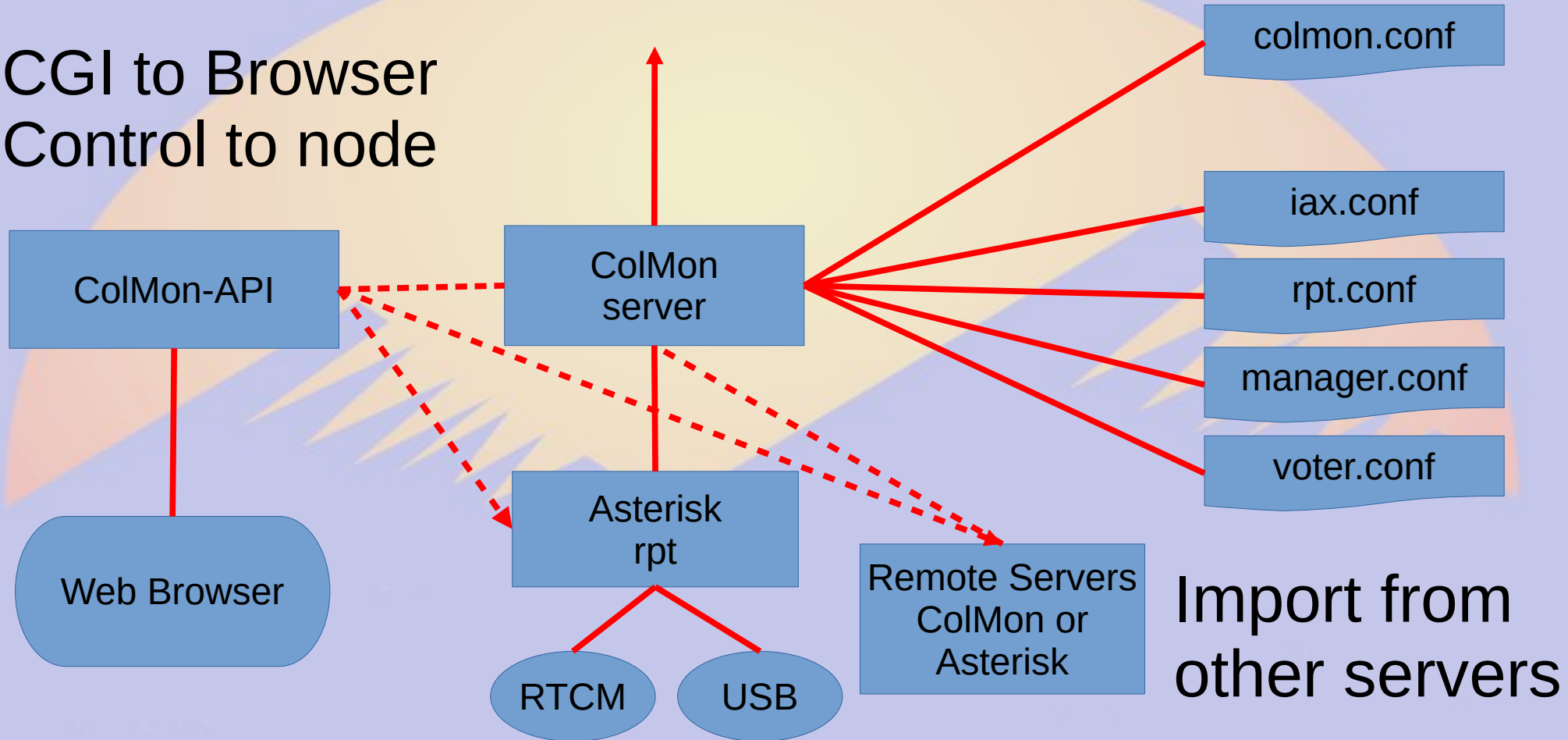
- Complete rewrite
 - C server (AC0KQ)
 - HTML/Javascript (K0SWE)
- Features
 - Integrate displays
 - Distribute servers
 - Minimal configuration
 - Focus on private nodes
 - Detailed node status

ColCon ColMon

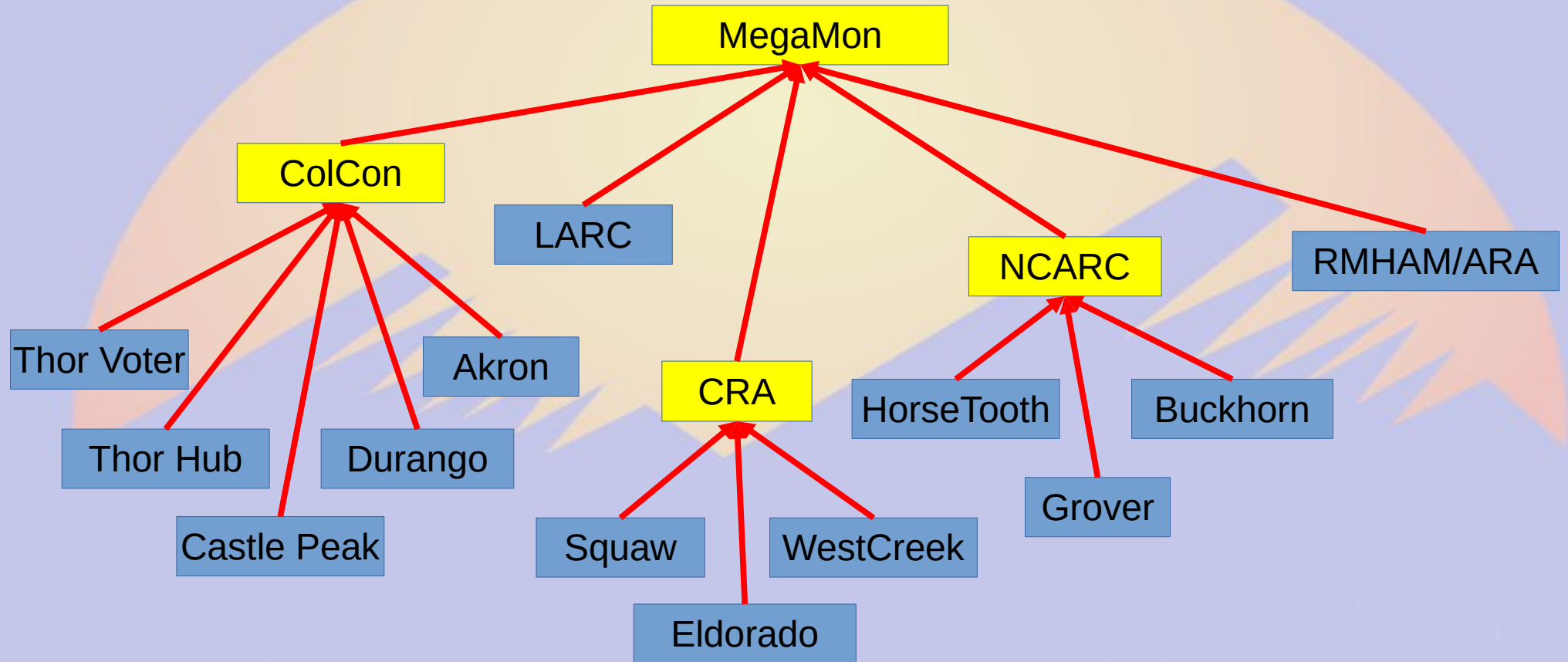
1801 - Thorodin Hub							Rx Link	Tx Link													
Node	Node Information	Received	Link	Direction	Connected	Mode	Tx														
1811	Thorodin Voter 145.310 - 88.5/123.0	never	Established	Out	26:59:15	Transceive	Local														
<table border="1"> <thead> <tr> <th>Client</th> <th>RSSI</th> </tr> </thead> <tbody> <tr> <td>Thorodin_A TX</td> <td></td> </tr> <tr> <td>Thorodin_B RX</td> <td>255</td> </tr> <tr> <td>LeeHill RX</td> <td>156</td> </tr> <tr> <td>Squaw RX</td> <td>255</td> </tr> <tr> <td>Spire RX</td> <td></td> </tr> <tr> <td>Conifer RX</td> <td>255</td> </tr> </tbody> </table>		Client	RSSI	Thorodin_A TX		Thorodin_B RX	255	LeeHill RX	156	Squaw RX	255	Spire RX		Conifer RX	255						
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1812	Colorado Springs/Cheyenne Mtn 145.130 - 88.5/123.0	000:00:01	Established	Out	35:39:03	Transceive	Local														
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1813	Winter Park/WA4CCC 147.285 - 88.5/123.0	050:42:26	Established	Out	107:47:46	Transceive	Link														
1814	Breckenridge/Baldy 147.390 - 88.5/123.0	001:45:45	Established	Out	107:47:45	Transceive	Link														
1817	Vail/Upper Dowd 147.345 - 88.5/123.0	004:53:18	Established	Out	107:47:43	Transceive	Link														
1819	Leadville/Mosquito 145.445 - 88.5/123.0	000:24:47	Established	Out	107:47:42	Transceive	Link														
1820	Eagle Hub/Castle Peak 446.325 - 203.5	027:51:43	Established	Out	107:47:41	Transceive	Link														
1821	Limon/Cedar Point 147.375 - 88.5/123.0	000:00:16	Established	Out	107:47:40	Transceive	Link														
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1822	Glenwood/Sunlight 146.850 - 88.5/123.0	000:17:52	Established	Out	107:47:39	Transceive	Link														
1823	Grand Junction/Grand Mesa 145.355 - 88.5/123.0	101:16:24	Established	Out	107:47:39	Transceive	Link														
1824	Akron 145.400 - 88.5/123.0	013:49:29	Established	Out	12:52:04	Transceive	Link														
1825	Salida/Methodist Mountain 147.285 - 88.5/123.0	never	Established	Out	107:47:37	Transceive	Local														
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1827	Durango/Missionary 147.345 - 88.5/123.0	005:59:42	Established	Out	107:47:36	Transceive	Link														
1828	Skunkworks/K2AD	never	Established	Out	107:47:35	Transceive	Link														
1829	Burlington 145.250 - 88.5/123.0	107:21:03	Established	Out	107:47:34	Transceive	Link														
1830	Denver-Spire 145.430 - 88.5/123.0	031:38:21	Established	Out	107:47:33	Transceive	Link														
1832	Denver UHF	101:07:20	Established	Out	107:45:51	Transceive	Link														

ColMon Subsystems

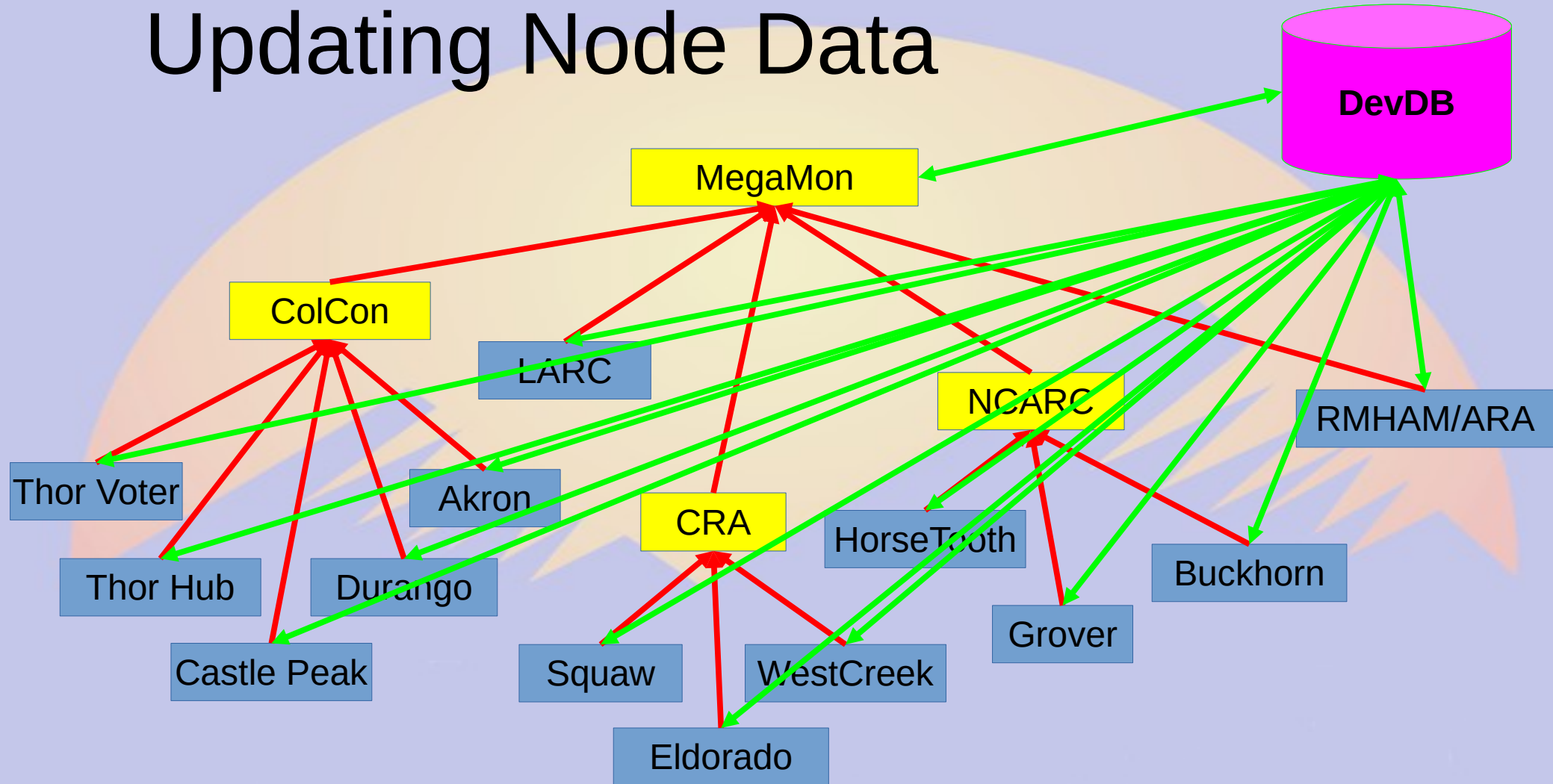
CGI to Browser
Control to node



ColMon Hierarchy



Updating Node Data



AllStarLink 3 (ASL3)

- Built against Asterisk 20
- Repo and modules for current Debian
- Upgrades handled by apt-get
- Templates simplify configuration files
- Unbound DNS resolver
- Very stable

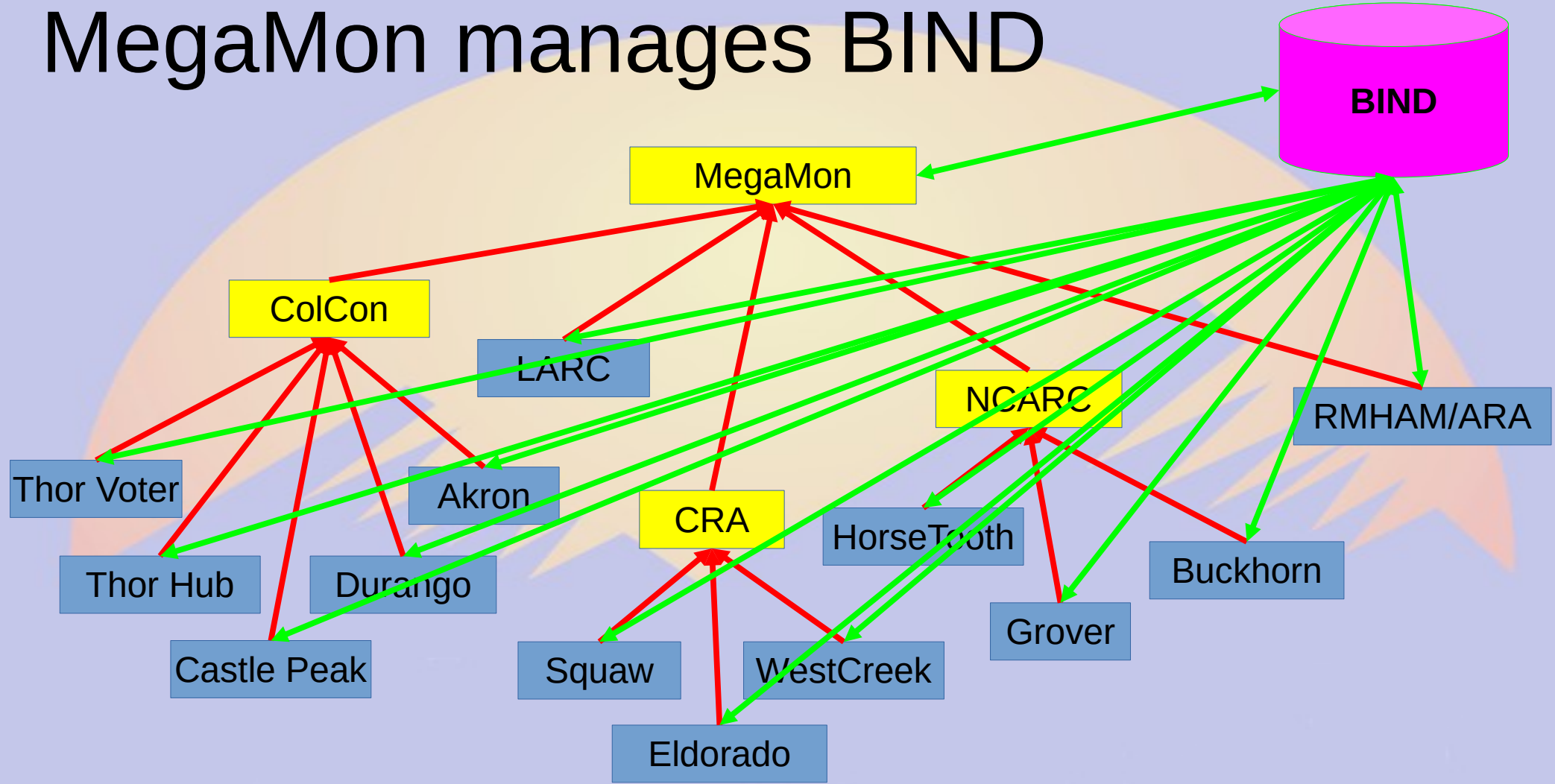
Upgrading to ASL3

- Config files not backward compatible
 - `asl-menu` streamlines setup
 - `#includeifexists => #tryinclude`
 - New format for extensions
- Many new modules
 - `resolver_unbound.conf`

Unbound Resolver

- Look up node info using DNS
 - Independent of kernel `/etc/resolv.conf`
- `modules.conf`
 - `load => res_resolver_unbound.so`
- `resolver_unbound.conf`
 - `nameserver = 10.30.20.237`

MegaMon manages BIND



DNS Records

```
1801 IN A 10.30.20.230
_iax._udp.1801 IN SRV 10 10 4569 1801
1801 IN TXT ( "NN=1801" "RT=2024-08-12 11:34:28" "RB=0" "PIP=" "PT=4569" "RH=colmon" )

1811 IN A 10.30.20.229
_iax._udp.1811 IN SRV 10 10 4569 1811
1811 IN TXT ( "NN=1811" "RT=2024-08-12 11:34:28" "RB=0" "PIP=" "PT=4569" "RH=colmon" )

1812 IN A 10.30.70.229
_iax._udp.1812 IN SRV 10 10 4569 1812
1812 IN TXT ( "NN=1812" "RT=2024-08-12 11:34:28" "RB=0" "PIP=" "PT=4569" "RH=colmon" )
```

Conclusions

- ASL3 is solid and plays well with old versions
- Real time updates of node data with BIND
- ColMon coming attractions
 - AllFall integration
 - Control operator presets