



CIRRUSWORKS

CirrusWorks Governor™

Next-Generation Bandwidth Management

CirrusWorks Governor is a bandwidth management solution that uses a proprietary volumetric traffic-shaping algorithm to optimize available bandwidth over Internet and WAN circuits, promoting fairness among LAN users without the need for deep packet inspection or any application-aware logic.

Optimized Data Flow with Minimal Configuration

CirrusWorks Governor uses algorithms instead of static rules and complicated policies to optimize bandwidth utilization. Little to no configuration is necessary in most network environments. Simply connect 3 cables and turn on the device. Right away, the Governor starts learning about devices on your network and begins optimizing data flows.



Since the Governor's engine automates the process for you, there's no need for training or dedicated IT staff to configure and maintain rules and policies, saving you time and money. Software is updated seamlessly over the cloud. The Governor's self-learning algorithm continuously improves network performance, making policy changes a thing of the past.

Dynamic Bandwidth Allocation

The Governor does not utilize or enforce fixed rate-capping. The Governor uses dynamic rate-capping by applying an equitable allocation of available bandwidth to the population of users. In a fixed rate-capping world, some of that data might be rejected, causing re-transmissions, and further congesting the network WAN resource. The Governor's rate-capping is dynamic and varies in real time based upon available bandwidth and historical and actual presented data payloads by device.

By constantly making "best fit" decisions, traffic becomes normalized and tends to stay normalized – averting the rushes and surges often seen in traditional packet shaping or rate-capping implementations. The Governor minimizes re-transmissions and lost transmissions altogether, further smoothing network performance.

Cooperative Appliance

The CirrusWorks Governor was designed to coexist with other packet flow devices on your network, including routers, firewalls, gateways, content filters, traffic shapers and switches.

Augmenting your existing policy-based WAN optimization tools with the automated

TECHNICAL FEATURES

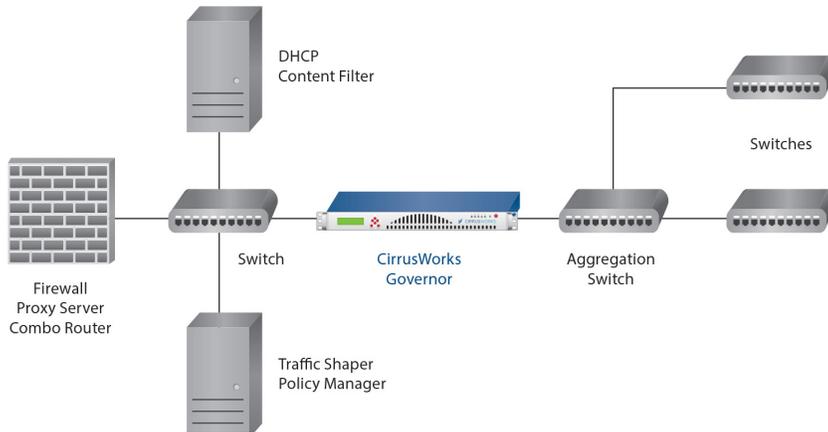
- Internet and WAN bandwidth management
- Volumetric fairness algorithms
- Behavior-based analytics
- No deep packet inspection or rules and policies
- Asymmetric bandwidth management
- Dynamic congestion control
- WAN congestion prediction
- Transparent packet bridging
- LAN/WAN equipment agnostic
- Enterprise compatibility: 802.1X, RBAC
- Shelf and rack form factors

UNIQUE ADVANTAGES

- Minimal configuration
- No training/expertise required
- Fully automated
- Dynamically adjusts to user behavior
- Complements existing bandwidth optimization programs
- Up to 1Gbps throughput

Governor engine will boost Internet performance, especially in diverse user environments where it is becoming increasingly difficult to predict user behavior. The Governor complements your network – maximizing any previous infrastructure investments.

Security Compliant



Because the Governor is an L2 bridging device, user data packets are never opened at the payload layer, ensuring data confidentiality and packet security. When deployed in a best practices environment, the Governor meets the network security guidelines and best practices for HIPAA, VISA PCI, and the privacy requirements of most Governments and agencies.

Robust Reporting

The Governor's reporting interface helps IT staff identify and pinpoint abusive devices on the network and better predict bandwidth requirements over time. Aggregated statistical information can be used to enhance other rules-based tools for rate-capping, white-listing devices and identification of problem traffic patterns.

ABOUT CIRRUSWORKS

CirrusWorks™ is the leader in dynamic bandwidth management. The CirrusWorks Governor™ optimizes traffic during peak congestion periods to ensure fast and reliable Internet performance for all users. Only CirrusWorks employs AutoAlgorithms™ that adapt to unpredictable traffic patterns in real time, without the need to pre-configure static rule sets or policies. For more information, visit www.cirrusworks.net.

WHY CIRRUSWORKS?

Facebook, YouTube, video-rich media, VoIP and video conferencing, BYOD, and cloud-based services. What do these have in common? Their use is increasing real-time demand on corporate and public networks, causing circuit congestion, packet delays/drops and ultimately poor overall quality of service (QoS) for time-dependent applications.

Traditional solutions to alleviate the oversubscription problem may be unacceptable to users, cost-prohibitive or ineffective:

- If demand during saturation periods exceeds available supply, adding more bandwidth or rate-capping may not be sufficient.
- Configuring and maintaining rule sets can be complex and time-consuming.
- Limiting or preventing site access or specific types of activities can be ineffective since user behavior is constantly changing and unpredictable.
- Users demand unrestricted, reliable Internet access all the time.
- Security protocols may not permit Deep Packet Inspection.