# Network Bandwidth Management



# Network bandwidth management feature packs

Service providers face increasing pressure to deliver reliable, high-quality network services to their customers. Traditionally, bandwidth management was a manual and reactive process that made it difficult to respond quickly to emerging issues.

One of the most significant challenges is network congestion. Congested links, high latency, and other impairments negatively impact service quality, leading to poor end-customer experiences. Persistent network problems can make it difficult to meet service level agreements (SLAs), and in the worst cases, may result in SLA violations, contract breaches, and damage to brand reputation.

To overcome these challenges, network operators require automated tools that optimize bandwidth, reduce manual intervention, and ensure critical links always have sufficient capacity to avoid congestion. The Crosswork Network Controller addresses these needs with a suite of feature packs designed to streamline bandwidth management and traffic engineering.

- **Local Congestion Mitigation (LCM)** : A tactical solution for bandwidth management and congestion mitigation. LCM is ideal for directly addressing congestion issues on devices, without requiring a comprehensive traffic matrix or advanced planning.
- **SR Circuit-Style Manager (CSM)** : A strategic traffic engineering solution that enables you to reserve bandwidth in advance for critical services, avoiding congestion issues entirely for these high-priority services.
- **Bandwidth on Demand (BWoD)** : A solution that offers soft bandwidth guarantee services for SR policies, in contrast to the strict bandwidth guarantees provided by Circuit Style SR-TE services. Depending on the configuration, BWoD can either provide bandwidth reservation, or best-effort bandwidth paths for SR policies.

**Note** CSM and BWoD feature packs are mutually exclusive. Only one can be enabled at a time.

### Feature pack requirements

- Ensure you have the correct licensing package to use feature packs.
- Users must be assigned administrator roles or specific Device Access Group permissions to access certain features or configurations. For more information on RBAC and user roles, see the Cisco Crosswork Network Controller Administration Guide .