

Interoperability Matters!

THE INTEROPERABLE CHASSIS POOL MODEL

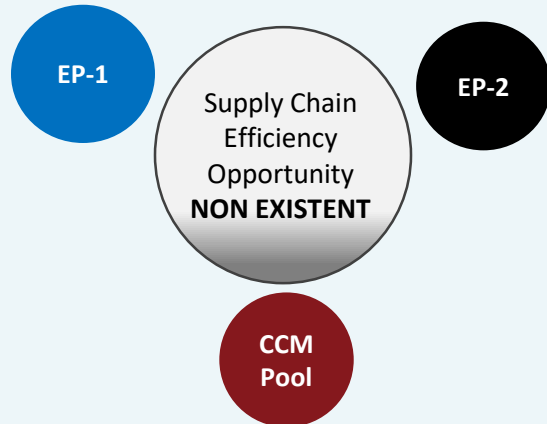
Enhancing Supply Chain Efficiencies

DEGREES OF INTEROPERABILITY



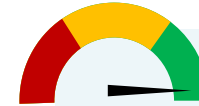
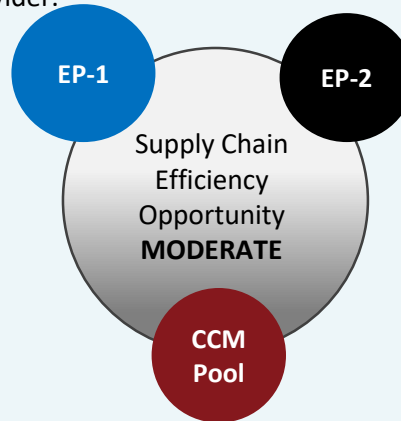
Non-Interoperable

In a non-interoperable pool, synergies are not captured. The fragmented approach slows the supply chain and adds cost.



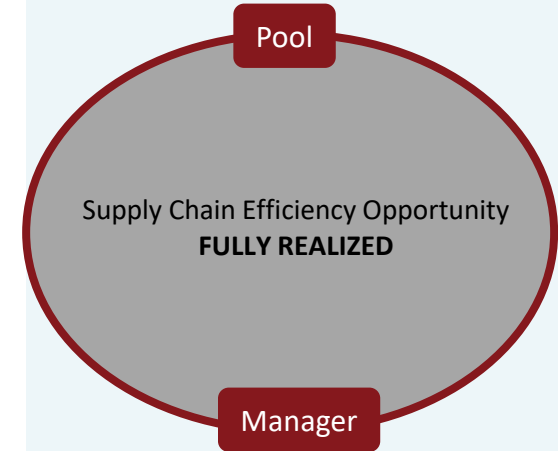
Partially Interoperable

In a partially interoperable pool (such as a Pool of Pools) some efficiency is gained while much is still left out due to independent behaviors from each provider.



Fully Interoperable

In a fully interoperable pool, under single management and fully shared assets, creating the opportunity for efficient supply chain fluidity.



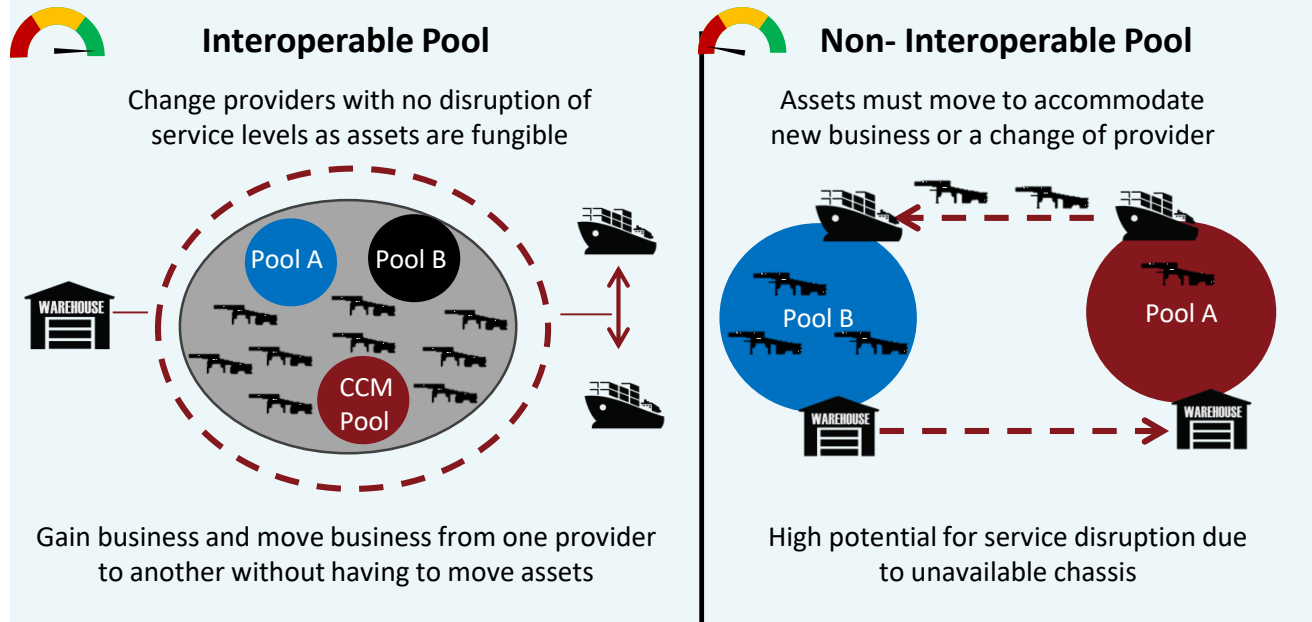


WHO IS IMPACTED BY NON-INTEROPERABILITY

COST CATEGORY	DESCRIPTION	WHO EXPERIENCES THESE COSTS?				
		OC	BCO	MC	EP	RR
Chassis Splits	When a trucker drops off a load or empty container for one ocean carrier and needs to backtrack to return the chassis in order to get a different chassis from a new location to pull for a different ocean carrier	✓	✓	✓		
Rail Demurrage	Storage charges at a rail ramp beyond the free time when chassis run short	✓	✓	✓		✓
Truck Detention	When a trucker spends more than the agreed wait time (usually 2 hours) at a facility for a chassis	✓	✓	✓		
Rail Flips	Moving a container from one chassis to another, usually at rail ramps	✓	✓	✓		✓
Dead Runs	A failed attempt to pick up a container at a rail ramp	✓	✓	✓		
Bare Repositioning	Moving a bare chassis from one location to another for redeployment purposes	✓	✓	✓	✓	✓
Extra Stock/Chassis	Additional chassis needed due to inefficient use of the fleet	✓	✓	✓	✓	✓
Reduced Truck Turns/Truck Capacity Impact	Reduced productivity of the truck due to overall inefficiency-in the supply chain adds cost	✓	✓	✓		
Slower Rail L/D Ops	Lower productivity in rail L/D operations due to multiple chassis pools					✓
Extra Product Inventory	Extra product/inventory needed due to reduced velocity in the supply chain		✓			

IMPACT OF INTEROPERABILITY

MAKING IT EASIER TO DO BUSINESS



SCALABLE

Ability to gain business

FLEXIBLE

Ability to change providers

CONSISTENT

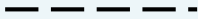
No disruption of service



POSITIVE IMPACT OF A NEUTRAL MANAGER ON INTEROPERABILITY



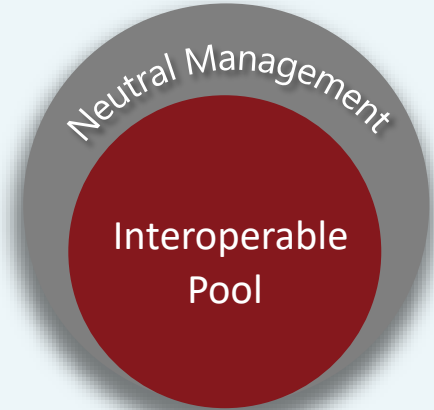
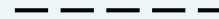
Single Point
of Contact



Impartial and
Transparent
Control



Non-Asset Based
Open
Competition



- **Single point of contact** for supply chain stakeholders allows for “ease of doing business” and consistent service.
- **Impartial and transparent control** across all equipment providing quality road ready chassis
- Being **Non-asset based** facilitates an “**open competition**” environment through low barriers to entry.



FOR SHIPPERS (BCO/NVO)



A CCM Interoperable pool provides for more reliable cargo flows, thus, **less buffer stock needed** resulting in lower cargo carrying cost.

In a CCM Pool you'll find multiple chassis suppliers in a **"fungible fleet"** environment offering more **competitive chassis provision options** and service offerings/pricing as a result.



BCO's can contribute chassis to a CCM Pool - a BCO can contribute chassis to a CCM pool, or they can have their Motor Carrier contribute on their behalf. Either way the BCO is given numerous options on chassis provision.

FOR RAILROADS AND RAIL RAMP OPERATORS

OFFERING WHEELED OPERATIONS



In a CCM interoperable chassis pool, the rail ramp operator can **choose any chassis on the facility (instead of hunting for one)** to discharge a container, saving time and money.



With **faster loading and discharging of trains**, a railroad can move railcars in and out of the rail ramp more quickly. This works well with “**precision railroading**” **objectives**, improving service, saving on cost, and ultimately creating more capacity for the railroad.



Under a single unified neutral management, rail ramp experiences **simplified coordination** for logistics and maintenance, **requiring fewer chassis** resulting in a smaller footprint and **better overall safety**.



FOR OCEAN CARRIERS AND OCEAN TERMINAL OPERATORS



In a CCM Interoperable Pool, through ‘open contribution’ and a “fungible fleet” Ocean Carriers enjoy a **wide range of chassis suppliers to choose from**, allowing for flexible provider choice, much broader competition, **greater supply and lower costs**.

With a CCM Pool, interoperability allows for more efficient use of the chassis fleet by motor carriers resulting in **fewer gate moves** through the terminal gates. This results in better terminal fluidity, **shorter wait times and less carbon output**.

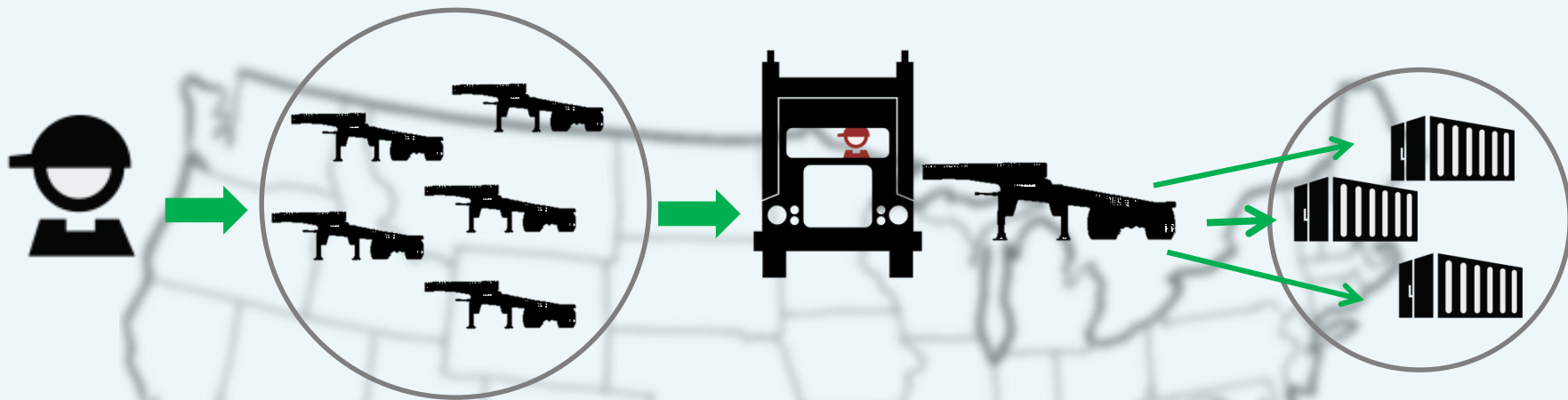




FOR MOTOR CARRIERS

In a CCM Interoperable Pool the Motor Carrier enjoys the **freedom to use the chassis of his choice on multiple container moves without having to unhook from the chassis**. This saves time and money; is safer, and allows the motor carrier to be more efficient thus adding much needed truck capacity to the supply chain.

In a CCM Pool, given a broader range of chassis suppliers, Motor Carriers can **negotiate better terms and lower rates**. This can differ by region depending on the area they are operating in and volumes required.





SUSTAINABILITY FOR EVERYONE

A CCM INTEROPERABLE POOL IS BETTER FOR THE ENVIRONMENT

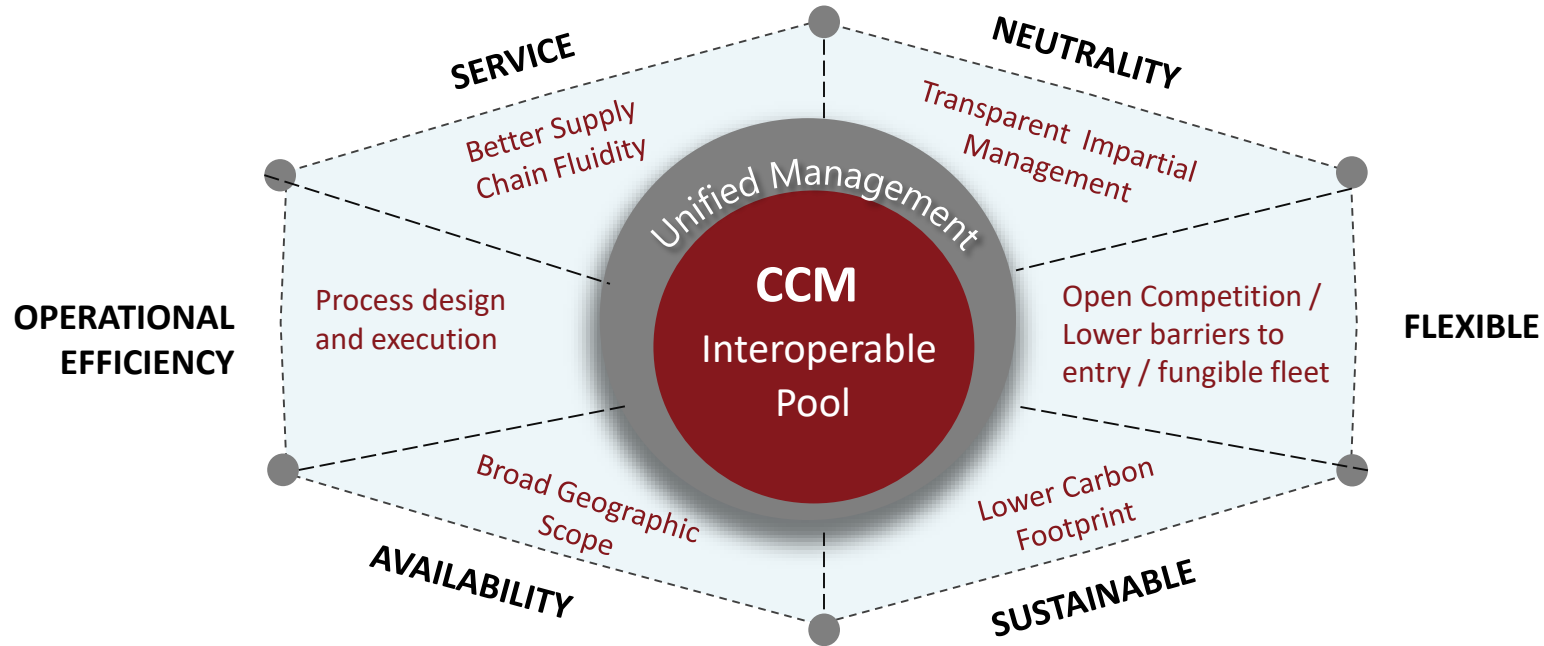


In wheeled operations Rail/Ship Loading and Unloading operations are faster, requiring fewer machine operating hours thus **burning much less fuel**, resulting in less emissions and a smaller carbon footprint.

Outside the terminals, **motor carriers** can use the same chassis for multiple container moves allowing for fewer bare chassis moves or “chassis splits”. Fewer chassis splits means **more efficient truck use**, less idling and waiting time, allowing for lower emissions and a lower carbon output from the truck.



INTEROPERABILITY MATTERS



YOUR SUPPLY CHAIN IS ONLY AS STRONG AS YOUR WEAKEST LINK.



**Don't let a non-interoperable chassis slow you down.
Don't let lagging technology hold you back.**



CCM's staff is comprised of the industry's leading experts on chassis provisioning, utilizing state of the art technology specifically designed for managing interoperable chassis pools.



As a neutral chassis pool manager we are interested in doing right by all stakeholders in the supply chain.



"Interoperability" in all CCM pools ensures benefits are optimized for all stakeholders, driving healthy competition, supply chain fluidity, efficiency, and sustainability.

