

Potential RCN No-Cost Service Additions for Consideration

Name of Service:	Disaster Recovery Backups
Description of Service	The RCN would be used as a conduit to maintain reasonably current backups in a geographically distant location. These backups would allow agencies to regain operational status more quickly in the event of a disaster. Primary backups would take place on evenings and weekends with smaller communications at other times to maintain currency.
Compatibility with Funding Requirement:	This is not a transportation use, but usage will be scheduled off-peak and will be throttled as necessary to restrict impact on transportation uses. This is consistent with the funding requirement.
Estimated Maximum Bandwidth per connection:	0.2 – 0.4 Gbps
Regional Benefit:	Allows agencies to setup hot disaster recovery sites without the ongoing cost of leased lines.
Agency Distribution	This service will help geographically dispersed agencies with their disaster recovery needs.
Cost to RCN of Implementation:	There will be \$0 costs for the RCN. It may be necessary for the participating agency to utilize the Network Manager to spend time setting up and configuring both the agency systems that are to be connected and in some instances configuration of the RCN hardware. The agency understands that they will be financially responsible for the Network Managers time.

Pros:

- Cost effective provisioning of disaster recovery communication
- Demonstrated Information Technology/Disaster Preparedness use opens door to possible additional funding options for expansion
- Efficient use of network bandwidth in low usage periods
- Consistent with the current service level expectations

Cons:

- Potential bandwidth conflict with transportation use if enough agencies participate

Mitigation:

- Agencies that use this option will do so with the understanding that they may be required to restrict their use to certain low usage times or to proactively throttle back traffic related to this service.
- Agencies will pick replication partners to reduce impact on the RCN as a whole. Options for doing this include picking partners on the same loop and taking into account the number of regional hubs traversed.

Recommendation:

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Approve this template for a no cost service addition. Individual agencies who wish apply to implement should conform to the bandwidth estimates above, agree that they understand that the service may be restricted in future if the transportation use is impacted, and follow the mitigation recommendations. Implementation at each agency and ADOT may take place after system acceptance for the RCN.

Name of Service:	Dynamic Message Signs
Description of Service	The dynamic message sign add-on for Camera Cameleon would be enabled to allow neighboring jurisdictions to view messaging information.
Compatibility with Funding Requirement:	This is a transportation use and is consistent with the funding requirement.
Estimated Maximum Bandwidth per connection:	Negligible
Regional Benefit:	Allows agencies to view DMS content from adjacent agencies that may impact local or regional traffic patterns.
Agency Distribution	This service will be available to all participating agencies.
Cost to RCN of Implementation:	There will be \$0 costs for the RCN. It may be necessary for the participating agency to utilize the Network Manager to spend time setting up and configuring both the agency systems that are to be connected and in some instances configuration of the RCN hardware. The agency understands that they will be financially responsible for the Network Managers time.

Pros:

- Expanded interagency access to real-time traffic sign data
- Leverages existing work with Camera Cameleon
- Consistent with the current service level expectations

Cons:

- Additional configuration and coordination required by agencies and ADOT

Mitigation:

- ADOT will assist in the configuration and troubleshooting of the additional service.

Recommendation:

Approve this template for a no cost service addition. Implementation at each agency and ADOT may take place after system acceptance for the RCN.

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Name of Service:	Alternative communications path for traffic signals.
Description of Service	The RCN would be used as an alternative communications path for center to field traffic signal communications, if the primary communications path is not functioning.
Compatibility with Funding Requirement:	This is a transportation use and is consistent with the funding requirement.
Estimated Maximum Bandwidth per connection:	Negligible 384K
Regional Benefit:	Allows agencies to provide backup signal communication with the TMC without the ongoing cost of leased lines.
Agency Distribution	This service will help region-wide agencies like ADOT and MCDOT provide a backup path for signal traffic. Less geographically distributed agencies may also be able to leverage this service. In all cases, this will provide reliability and recoverability to traffic flow that may affect neighboring jurisdictions.
Cost to RCN of Implementation:	There will be \$0 costs for the RCN. It may be necessary for the participating agency to utilize the Network Manager to spend time setting up and configuring both the agency systems that are to be connected and in some instances configuration of the RCN hardware. The agency understands that they will be financially responsible for the Network Managers time.

Pros:

- Cost effective provisioning of communication paths
- Consistent with the current service level expectations

Cons:

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Mitigation:

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Recommendation:

Approve this template for a no cost service addition and approve the proposed Maricopa County project as a pilot with the understanding that Maricopa County will review findings with a lessons learned workshop if necessary.