

# MikroTik


EN SOLUTION  
ALTERNATIVE



MUM PARIS - Vendredi 13 mai 2016





Azurtem  
c'est moi

Créée en 2009, basée à NICE.

Maintenance: Systèmes & Réseaux.

Wifi, Câblage, Vidéosurveillance.

Mikrotik'isé depuis 2011



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Besoins du client:

Connectivité de ses agences



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Besoins du client:

Durée max  
coupure:  
2hrs

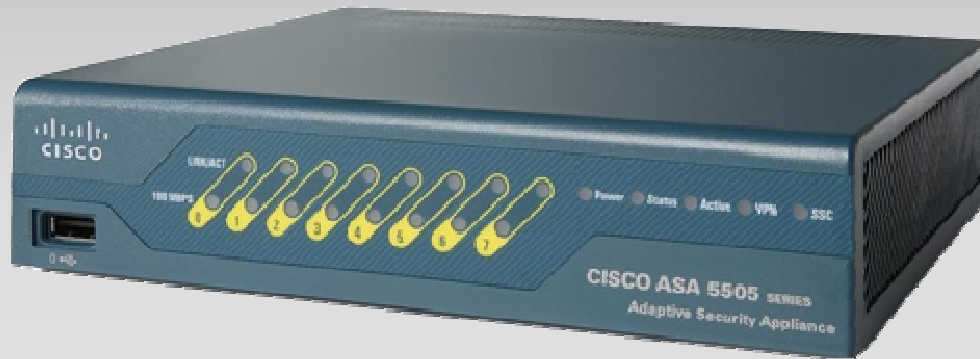
Connectivité de ses agences

# High availability routing appliance for small business



PRESENTER: ROY ADAMS  
[www.racs.com.au](http://www.racs.com.au) • [www.dnssecrets.com](http://www.dnssecrets.com)

Merci à Roy ADAMS  
de RACS pour sa  
présentation intitulée  
"High Availability  
Routing" dont je me  
suis inspirée.  
[MUM Sydney 2012]



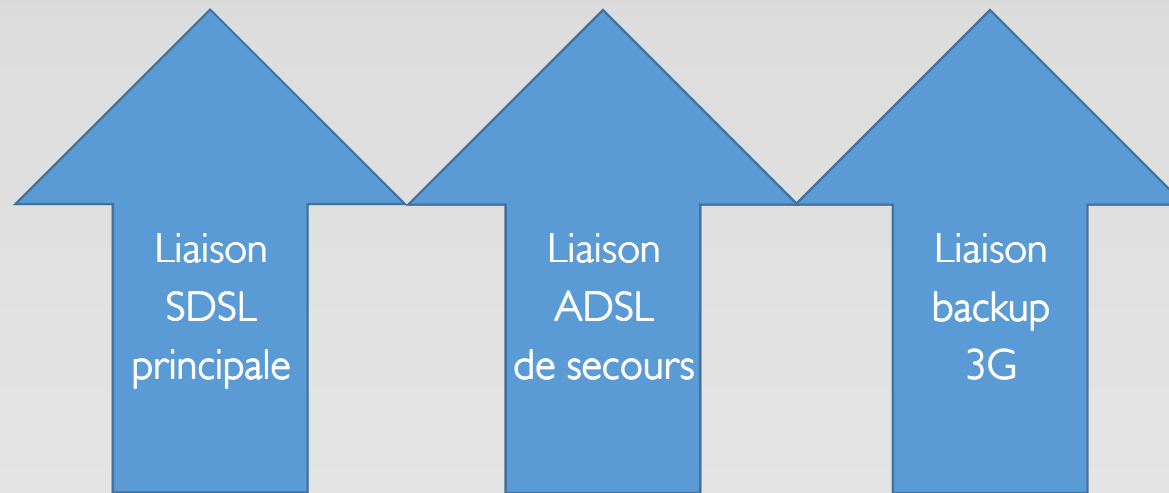
\$595

Prix de départ



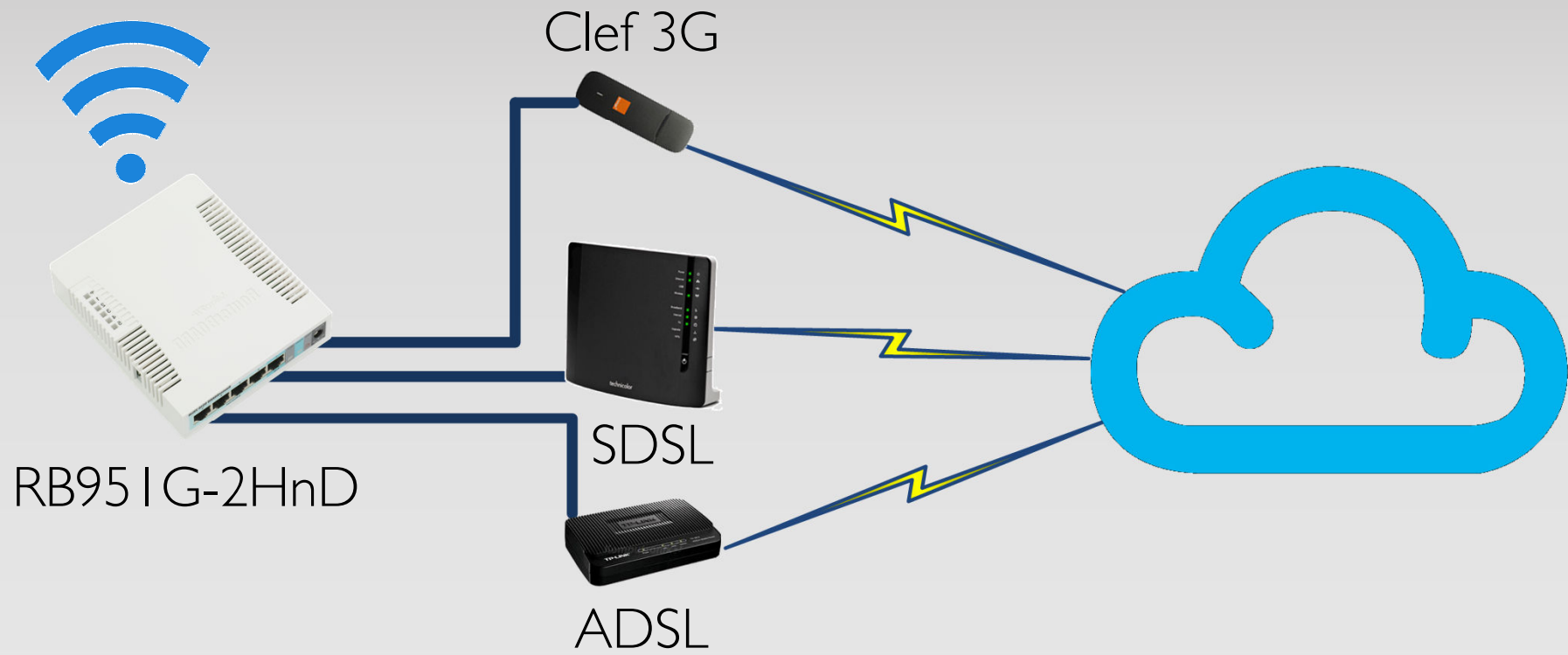
Tout compris

Une ligne de secours c'est bien,



deux c'est mieux.





# Liens Actifs



# Expédition et Installation



# WAN Failover Script

```
#-----  
# MikroTik RouterOS WAN Failover  
#-----  
#alexanderfefelov  
#https://github.com/alexanderfefelov/mikrotik-routeros-scripts/blob/master/wan-failover  
#-----  
# Settings  
#-----  
:local PRIMARYROUTELABEL "PRIMARY_ROUTE";  
:local BACKUPROUTELABEL "BACKUP_ROUTE";  
# Hosts to ping via primary route (Yandex.DNS)  
:local PRIMARYHOSTS {77.88.8.8; 77.88.8.7};  
# Hosts to ping via backup route (Yandex.DNS)  
:local BACKUPHOSTS {77.88.8.1; 77.88.8.3};  
:local PINGCOUNT 3;  
:local PINGTRESHOLD 70;  
  
#-----  
# Check primary route  
#-----  
:local primaryOk false;  
:local primarySuccessPingCount 0;  
:foreach host in=$PRIMARYHOSTS do={  
    :local n [/ping $host count=$PINGCOUNT];  
    :set primarySuccessPingCount ($primarySuccessPingCount + $n);  
}  
:set primaryOk (($primarySuccessPingCount * 100) >= ([:len $PRIMARYHOSTS] * $PINGCOUNT * $PINGTRESHOLD));  
:if (!$primaryOk) do={  
    :log error "Primary internet connection down"  
};  
  
#-----  
# Check backup route  
#-----  
:local backupOk false;  
:local backupSuccessPingCount 0;  
:foreach host in=$BACKUPHOSTS do={  
    :local n [/ping $host count=$PINGCOUNT];  
    :set backupSuccessPingCount ($backupSuccessPingCount + $n);  
}  
:set backupOk (($backupSuccessPingCount * 100) >= ([:len $BACKUPHOSTS] * $PINGCOUNT * $PINGTRESHOLD));  
:if (!$backupOk) do={  
    :log error "Backup internet connection down"  
};  
  
#-----  
# Failover  
#-----  
:local primaryDistance [/ip route get [find comment=$PRIMARYROUTELABEL] distance];  
:local backupDistance [/ip route get [find comment=$BACKUPROUTELABEL] distance];  
:if ($primaryOk && ($primaryDistance >= $backupDistance)) do={  
# Switch to primary route  
    /ip route set [find comment=$PRIMARYROUTELABEL] distance=1  
    /ip route set [find comment=$BACKUPROUTELABEL] distance=2  
    /log warning "Switched to primary internet connection"  
# Remove all connections  
    /ip firewall connection tracking set enabled=no  
    :delay 5s  
    /ip firewall connection tracking set enabled=yes  
};  
:if (!$primaryOk && $backupOk && ($primaryDistance <= $backupDistance)) do={  
# Switch to backup route  
    /ip route set [find comment=$PRIMARYROUTELABEL] distance=2  
    /ip route set [find comment=$BACKUPROUTELABEL] distance=1  
    /log error "Switched to backup internet connection"  
# Remove all connections  
    /ip firewall connection tracking set enabled=no  
    :delay 5s  
    /ip firewall connection tracking set enabled=yes  
};
```

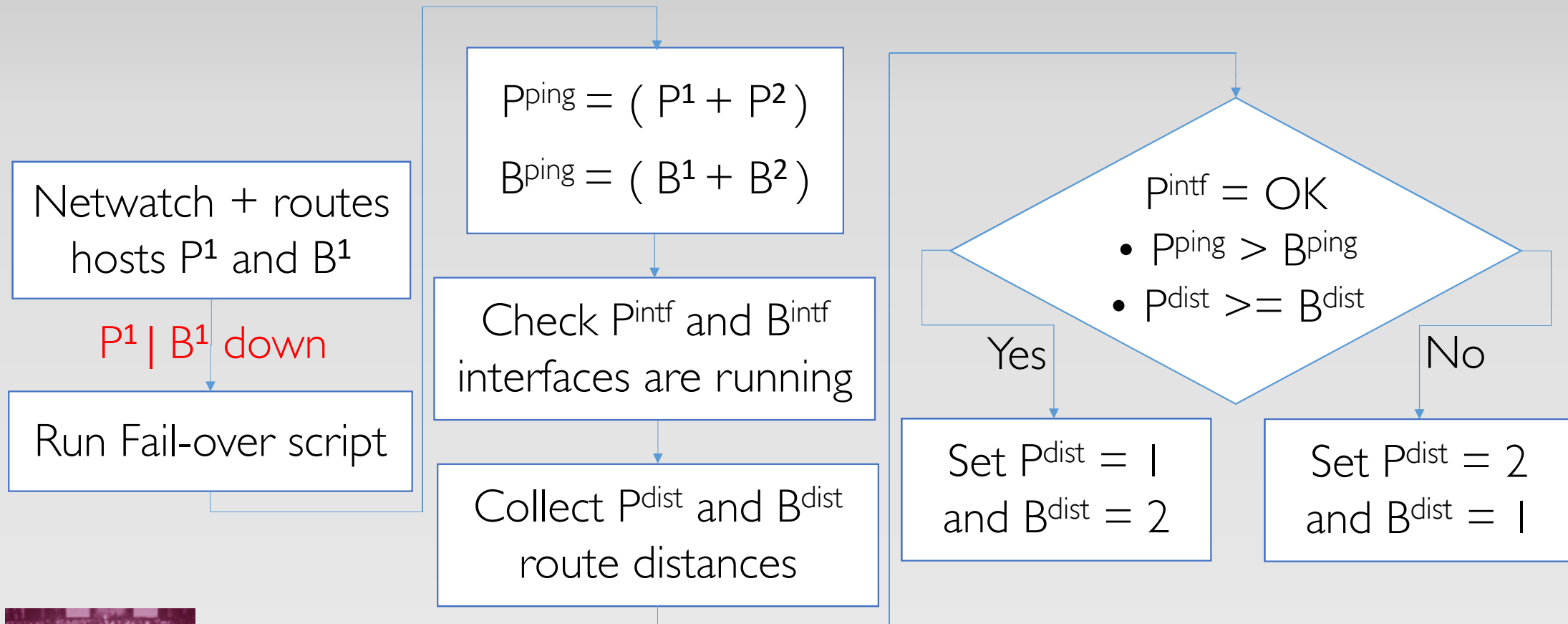


By Alexander FEFELOV

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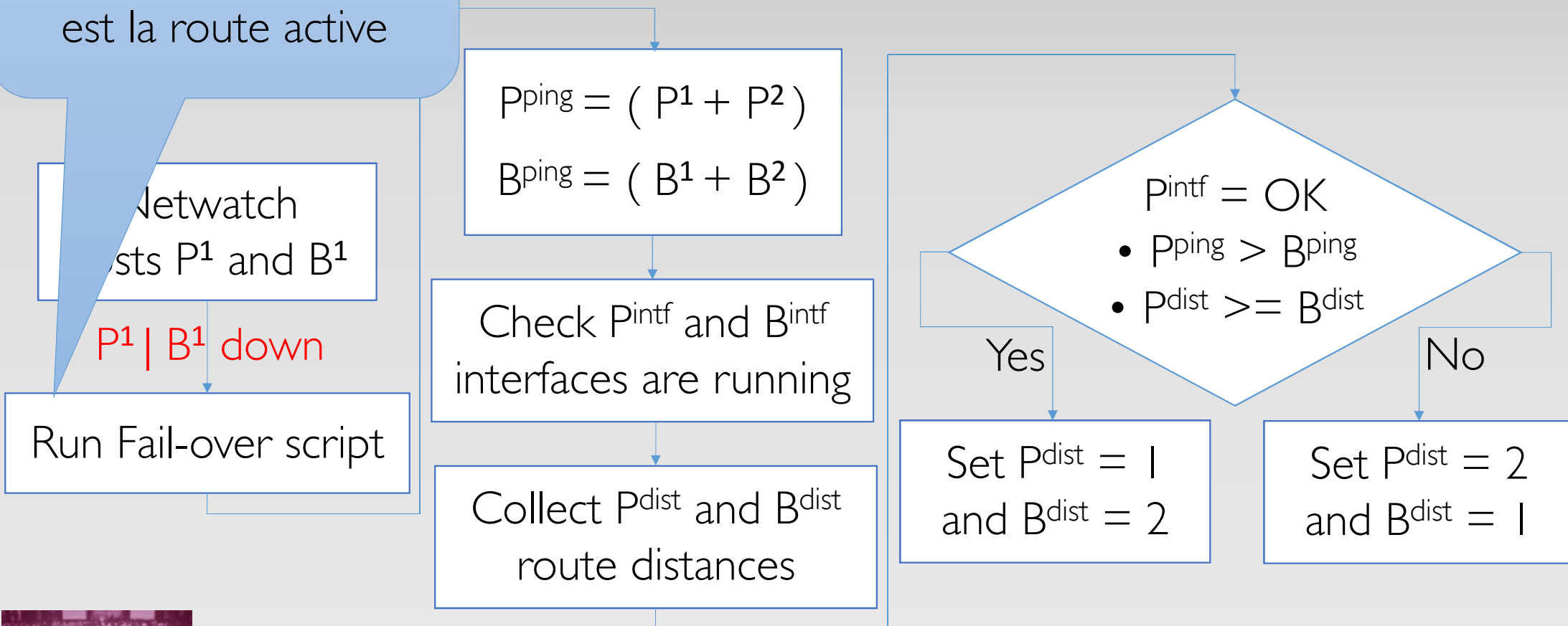


# Fail-over logic



Répéter l'exécution du script tant que Backup est la route active

# Fail-over logic



# Difficultés

## Téléphonie sur IP

### Gestion de la bande passante



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# Paldies

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