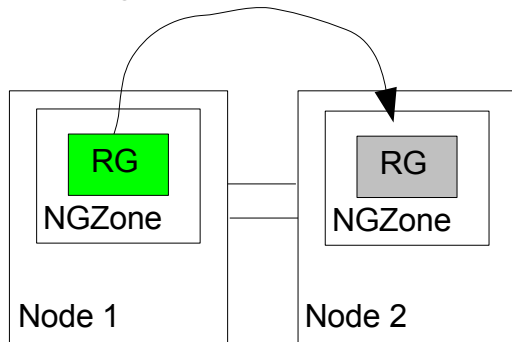


# Open HA Cluster agent for Informix Dynamic Server

Design Objective – Enable IDS to run in Global, Non-global zone or Failover zone

Note: Throughout this slide deck, the caller sequence for Global zone and Non-global zone are the same.



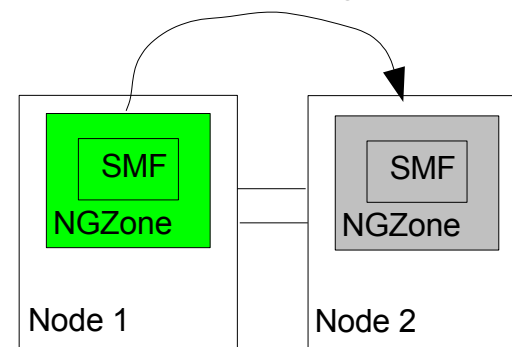
Unit of failover = Resource Group

Caller Sequence

- Resource Group Manager (RGM)
- Generic Data Service (GDS)
- HA-Informix

Manager = GDS (Start/Stop/Probe/Validate)  
 - Informix running in Global or Non-global zone

Restart/Failover = RGM/GDS/HA-Informix



Unit of failover = Failover zone

Caller Sequence

- Resource Group Manager (RGM)
- Generic Data Service (GDS)
- HA-Container
  - Boot/halt zone (sczbt)
  - Enable/disable SMF service (sczsmf)
- SMF Informix Service
- HA-Informix start/stop/validate scripts

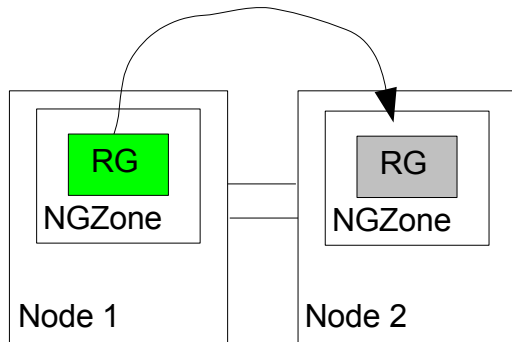
Manager = SMF (Start/Stop/Validate) & GDS (Probe)  
 - Informix running in Non-global zone

Restart = SMF

Failover = RGM/GDS/HA-Container

# Open HA Cluster agent for Informix Dynamic Server

## Caller Sequence



## Caller Sequence

- RGM -> GDS -> HA-Informix

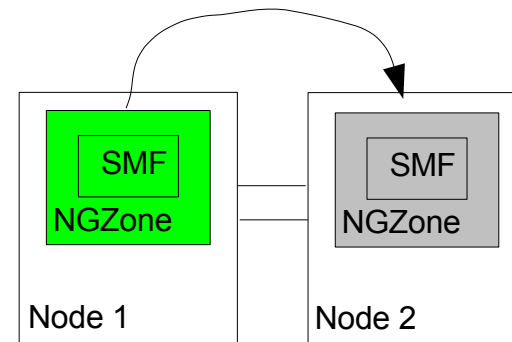
```
/opt/SUNWscids/bin/control-ids
  <options> <parameter1> <parameter2>
```

Restart/Failover – RGM/GDS

Probe returns 0 (ok)

100 (restart)

201 (failover)



## Caller Sequence

- RGM -> GDS -> (sczbt)  
GDS -> (sczsmf)

```
- SMF (/opt/SUNWscids/bin/control-ids)
  <parameter1> <parameter2> <parameter3>
```

```
-GDS (/opt/SUNWscids/bin/control-ids)
  <options> <parameter1> <parameter2>
```

Restart – SMF

Failover – RGM/GDS

- SMF restart is recorded by GDS as retry

```
<options>: -R <resource> -G <resourcegroup> etc.
parameter1: start | stop | probe | validate
parameter2: ids
parameter3: <FMRI>
```

# Open HA Cluster agent for Informix Dynamic Server

## Registration – GDS Resource or SMF Service



Caller = GDS

Caller = SMF

/opt/SUNWscids/util/ids\_config

/opt/SUNWscids/util/ids\_register

- Determines who the caller will be

GDS  
SMF

Creates a SC Resource  
Store properties in CCR

Create a SMF service within the Non-Global zone  
Store properties within NGZ SMF Repository  
Creates a GDS sczsmf resource

# Open HA Cluster agent for Informix Dynamic Server

## Caller Sequence – VALIDATE method



Caller = GDS

Caller = SMF

/opt/SUNWscids/bin/control\_ids

- Determines who the caller is
  - For GDS get parameters from scha\* calls
  - For SMF get parameters from SMF repository
- Validate Informix using appropriate parameters
- Return success (0) or failure (1)

# Open HA Cluster agent for Informix Dynamic Server

## Caller Sequence – START method



Caller = GDS

Caller = SMF

/opt/SUNWscids/bin/control\_ids

- Determines who the caller is

- For GDS get parameters from CCR using scha\* calls

- For SMF get parameters from SMF repository using svcprop

- Start Informix using appropriate parameters

- For GDS, Process Monitor Facility (PMF) is used

- For SMF, Contract Service Model is used

Return success (0) or failure (1)

# Open HA Cluster agent for Informix Dynamic Server

## Caller Sequence – STOP method



Caller = GDS

Caller = SMF

→ /opt/SUNWscids/bin/control\_ids ←

- Determines who the caller is
  - For GDS get parameters from scha\* calls
  - For SMF get parameters from SMF repository
- Stop Informix using appropriate parameters
- Return success (0) or failure (1)

# Open HA Cluster agent for Informix Dynamic Server

## Caller Sequence – PROBE method



Caller = GDS

Caller = GDS (zlogin to Non-global zone)

`/opt/SUNWscids/bin/control_ids`

- Determines who the caller is
  - For GDS get parameters from scha\* calls
  - For SMF get parameters from SMF repository
- Probe Informix using appropriate parameters
- Return success (0), failure (100) or request immediate failover (201)

# Open HA Cluster agent for Informix Dynamic Server

Throughout this slide deck references will be made to various components that make up the OHAC Agent for Informix Dynamic Server. References will be made to these components although they will not be fully explained. Instead, the following reference links are provided.

General information on RGM

- <http://docs.sun.com/app/docs/doc/819-2969/6n57kl13s?a=view>

General Information on GDS

- <http://docs.sun.com/app/docs/doc/819-2972/6n57ngit6?a=view>

HA-Container agent

- <http://docs.sun.com/app/docs/doc/819-3069>

START, STOP, PROBE and VALIDATE methods of GDS

- SUNW.gds(5) man page (/usr/cluster/man)

General information on PMF

- pmfadm(1m) man page (/usr/cluster/man)

General information on SMF

- <http://www.sun.com/bigadmin/content/selfheal/>