Application Delivery

Dashboard v1.7

“The CSS Update”

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Version 1.7 “The CSS Update” - Features

- **The Pool grid layout now uses clip-based detection for grid layout changes**
  - Dashboard versions 1.0-1.6 used viewport-based CSS breakpoints to determine when to change the table layout from 4 pools to 3, 2, or 1 based on window width with some issues of status badge float in micro mode. Version 1.7 uses a universal clip-based detection that triggers when the status badges clip into the table head boundary resulting in a smoother and cleaner visual output with no horizontal scrollbar appearance long-term and no difference in operation of a grid change between Macro and Micro modes.

- **The Pool grid CSS is now embedded in the UI JavaScript module**
  - The pool grid logic has been removed from all theme CSS files and is now part of the JavaScript UI module. This permits a single piece of code that can be adjusted agnostic of the themes; 300-400 lines of redundant CSS were removed from the theme file and ensures pool grid behavior is consistent regardless of theme applied.

- **All CSS themes are performance optimized to use 0% GPU for normal non-alarmed viewing**
  - The original CSS themes were feature and effects heavy to include layered shadows, subtle transitions, and a pulsing “liveness” element for all ‘UP’ pool members. Although this was visually impressive with great depth, it had the negative effect of causing the browser to keep the GPU compositing pipeline open and operating at a constant 10+% GPU utilization for normal dashboard viewing with spikes to 25-30% in alarmed states. As part of v1.7 performance optimization, the heavy shadows, multilayered transitions and pulsing UP elements have been removed. This permits a **nearly equivalent visual experience** and no longer requires any GPU usage for normal viewing. GPU usage is now at 0% for non-alarmed states – with spikes to 15% during alarmed events and dropping back to 0% GPU when the alarm states are cleared.

Version 1.7 “The CSS Update” - Features

- **The number of dashboard themes has been reduced to three in a single CSS iFile**
  - While maintaining individual iFiles during initial theme development was preferable, it caused a significant amount of CSS duplication. In the interest of reducing iFile requirements and removing duplicate CSS code, all 3 CSS themes have been consolidated into a single **dashboard_themes.css** file. The Core JavaScript module was updated to support the new “body.theme” selection method for activating individual themes from a single CSS.
    This change also has the benefit of avoiding the browser “unbuilding” deactivated theme CSS files, which always caused a brief theme “flash” when a new theme was selected and the browser rebuilt the re-activated CSS layouts. With one CSS file always active – theme changes are always smooth regardless of how much time has passed since a user switched themes.

  - There are FOUR theme files that provide different theme1 options depending on customer desire; Only a single theme CSS is required for iFile installation.
    - **AGLight** (theme1) with **Monochrome Grey** (theme2) and **Amber** (theme3)
      - Default CSS - Used for installs where a color header bar is not desired

    - **Classification Color Theme1:**
      - **Green** theme1 with **Monochrome Grey** (theme2) and **Amber** (theme3)
      - **Red** theme1 with **Monochrome Grey** (theme2) and **Amber** (theme3)
      - **Yellow** theme1 with **Monochrome Grey** (theme2) and **Amber** (theme3)
    - *Note: The Blue theme has been deprecated and removed from dashboard*

- **DNS Resolve functions are now scoped**
  - The DNS Resolve functions now scope properly for visual pools in the same manner as pool poll scoping. If no search is active then DNS requests are made for all IP addresses for a site table that does not have an existing hostname in the site cache. If a search is active, then DNS requests are made only for the IP addresses of the pools that were made visible by the search function result. Dashboard versions 1.0-1.6 made full DNS requests for every pool regardless of pool visibility. The DNS scoping operation now matches the pool poll scoping operation in function and intent.

How to install v1.7

- **Remove the front-end v1.6 iRule from the dashboard virtualserver**

- **iRule – iFile list**
  - Delete the following LTM iFiles
    - dashboard_theme1.css
    - dashboard_theme2.css
    - dashboard_theme3.css
    - dashboard_theme4.css
    - dashboard_theme5.css
    - dashboard_js-ui.js
    - dashboard_js-core.js

  - ssh to the front-end and remove the sys iFiles (required!)
    - tmsh delete sys file ifile dashboard_js-core.js
    - tmsh delete sys file ifile dashboard_js-ui.js
    - tmsh delete sys file ifile dashboard_theme1.css
    - tmsh delete sys file ifile dashboard_theme2.css
    - tmsh delete sys file ifile dashboard_theme3.css
    - tmsh delete sys file ifile dashboard_theme4.css
    - tmsh delete sys file ifile dashboard_theme5.css

- **iRule – iFile list**
  - Install the version v1.7 JavaScript Modules and Theme CSS iFiles

    - **Create** –
      - **Name** = dashboard_js-ui.js *(this is the LTM iFile name)*
        - **Import file** - *(browse to the **minified** v1.7 dashboard_js-ui.js)*
        - **Name** *(this is the sys iFile name)* - dashboard_js-ui.js

          - Repeat for the Core JavaScript Module **dashboard_js-core.js** and the single consolidated **dashboard_theme.css**

- **Install the front-end v1.7 iRule and place it on the dashboard front-end virtualserver**
  - Make sure to set the local site name variable to match the site name of the front-end!
    - E.g set local_site_name “CHICAGO"

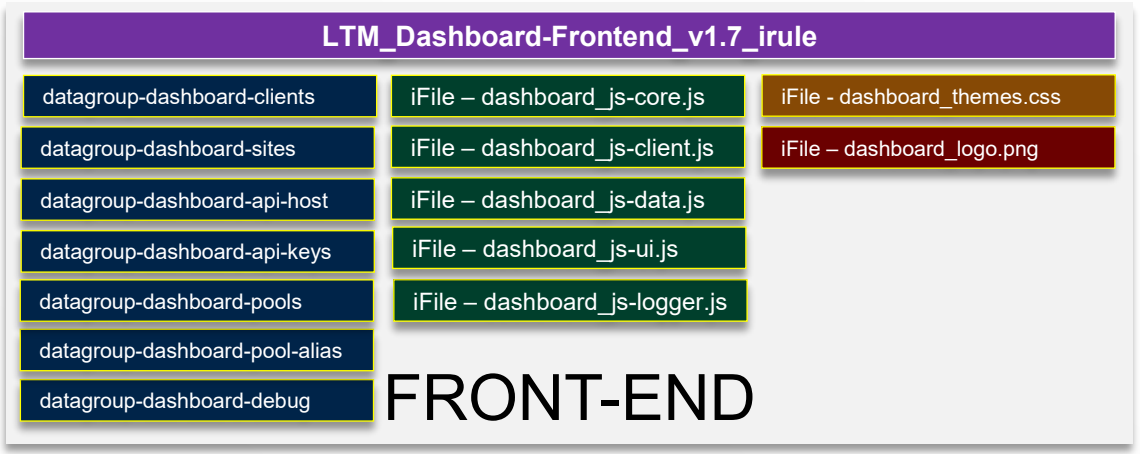
- **Replace all of the API host iRules with the new v1.7 iRule**

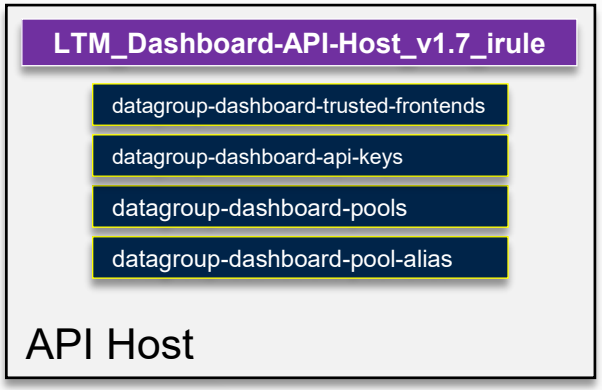
- **Every cluster must be on v1.7 code – remove the v1.6 iRules completely from all systems** (this is due to the DNS scoping change)

- **If any issues are encountered remove the remaining v1.6 JS Modules and install the entire v1.7 JS set**

iFiles and Datagroups

- This is what v1.7 looks like from a dependency perspective
- iFiles reduced from 4 theme CSS to 1 consolidated theme CSS
- Choose the desired theme1 and simply install that CSS as
  - dashboard_themes.css





JSON API 1.7 Format

/api/proxy/pools

```
{
  "hostname": "bigip-hostname",
  "timestamp": "YYYY-MM-DD HH:MM:SS",
  "debug_enabled": "enabled|disabled",
  "instanceId":"inst_timestamp_random" or null,
  "pools": [
    {
      "name": "pool_name",
      "alias": "user_friendly_name" or "null",
      "sort_order": number,
      "status": "UP|DOWN|DISABLED|UNKNOWN|EMPTY",
      "up_members": number,
      "down_members": number,
      "disabled_members": number,
      "total_members": number,
      "members": [
        {
          "ip": "x.x.x.x",
          "port": "port",
          "status": "up|down|disabled|session_disabled",
          "hostname": "resolved-hostname" or "null"
        }
      ]
    }
  ]
}
```

/api/health

```
{
  "status": "healthy|unhealthy",
  "hostname": "bigip-hostname",
  "timestamp": "YYYY-MM-DD HH:MM:SS",
  "uptime_seconds": number,
  "version": "1.7",
  "pools_configured": number,
  "message": "status description"
}
```