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AGILITY

BIG-IP Migration and Troubleshooting

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BIG-IP Migration and Troubleshooting

- iHealth
- Configuration migration options
- Retrieving data without the web interface

BIG-IP Migration and Troubleshooting

- iHealth – <https://ihealth.f5.com/>
 - Secure, simple to use, first step in a support case
 - No harm in proactive uploads
 - Immediate feedback regarding defects, possible configuration issues, etc.
 - Simple way to explore configurations

BIG-IP Migration and Troubleshooting

- iHealth demonstration
 - Overview of the interface
 - Immediate feedback – defects, possible misconfigurations, upgrade advice
 - Exploration of the configuration
 - Exploration of the performance data
 - Generate a QKView without using the web interface

BIG-IP Migration and Troubleshooting

- Configuration migration options
 - Manual reproduction – avoid this!
 - Loading a configuration fragment – “tmsh load sys config merge verify file vs.conf”
 - Loading a UCS / SCF
 - Clustering
 - Reproducible configurations via API / orchestration – embrace this!
 - Avoid touching the BIG-IP directly as a policy, not a preference
 - Source control and change management
 - Ansible doesn't mistype an address

BIG-IP Migration and Troubleshooting

- Configuration migration demonstration
 - Migrate a configuration using the UCS load “platform-migrate” option
 - <https://support.f5.com/csp/article/K82540512>
 - Simple scripted traffic configuration

BIG-IP Migration and Troubleshooting

- Retrieving data without the web interface
 - What can you wrap in an uploaded script? What about SSH one-liners?
 - Example: “ssh root@bigip-ve-01 tcpdump -c 500 -nni outside -s0 -w /root/`date +%Y-%m-%d.%H.%M.%S`.pcap” - creates a timestamped packet capture
 - What can you learn from your orchestration tools?
 - What can you extract via APIs?
 - What can you learn from the data plane?
 - Instrumentation iRules
 - Exported traffic statistics (BIG-IQ, Splunk, custom cacti implementation, etc.)
 - What can you receive from BIG-IP?
 - Syslog data, SNMP, clone pools
 - iRule data dump - example <https://devcentral.f5.com/codeshare?sid=598>
 - Data sent to infrastructure services and aggregators
 - Much more...

BIG-IP Migration and Troubleshooting

- Data retrieval demonstration
 - Per-stream and per-application instrumentation via iRules
 - Server response time
 - Average packet sizes per client connection
 - URI logging
 - SSL / TLS debugging (which exact cipher did this client use?)
 - Small sampling of information exposed via the iControl REST API
 - List of configured virtual servers
 - Statistics per virtual server
 - Pool member health

BIG-IP Migration and Troubleshooting

- Very brief history of computer automation
 - Hand-coded / hand-wired single purpose computers
 - Punch tape / punch card reading and writing
 - Job batching
 - Multi-user scripting
 - Automation frameworks
- End goal: more time for abstract work, and animal pictures
- Machines work, people play

BIG-IP Migration and Troubleshooting

Scripts used in the demonstrations are available at:
<https://github.com/f5rstahl/conf-agility-2018>

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Q&A

Thank You



