

CMon

Multi-Domain Circuit Monitoring

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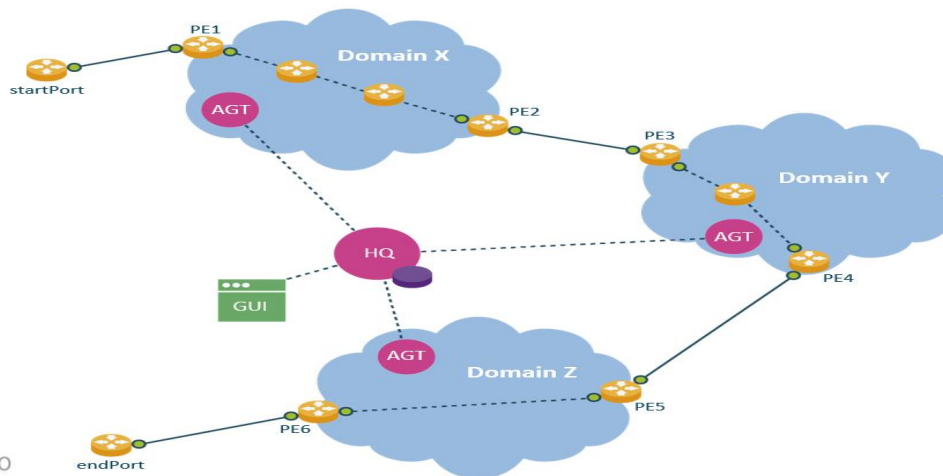
Agenda

- CMon
 - About
 - Architecture, Design Considerations
 - Information Workflow
- Current Status
- Roadmap
- CMon for GTS
- Conclusion



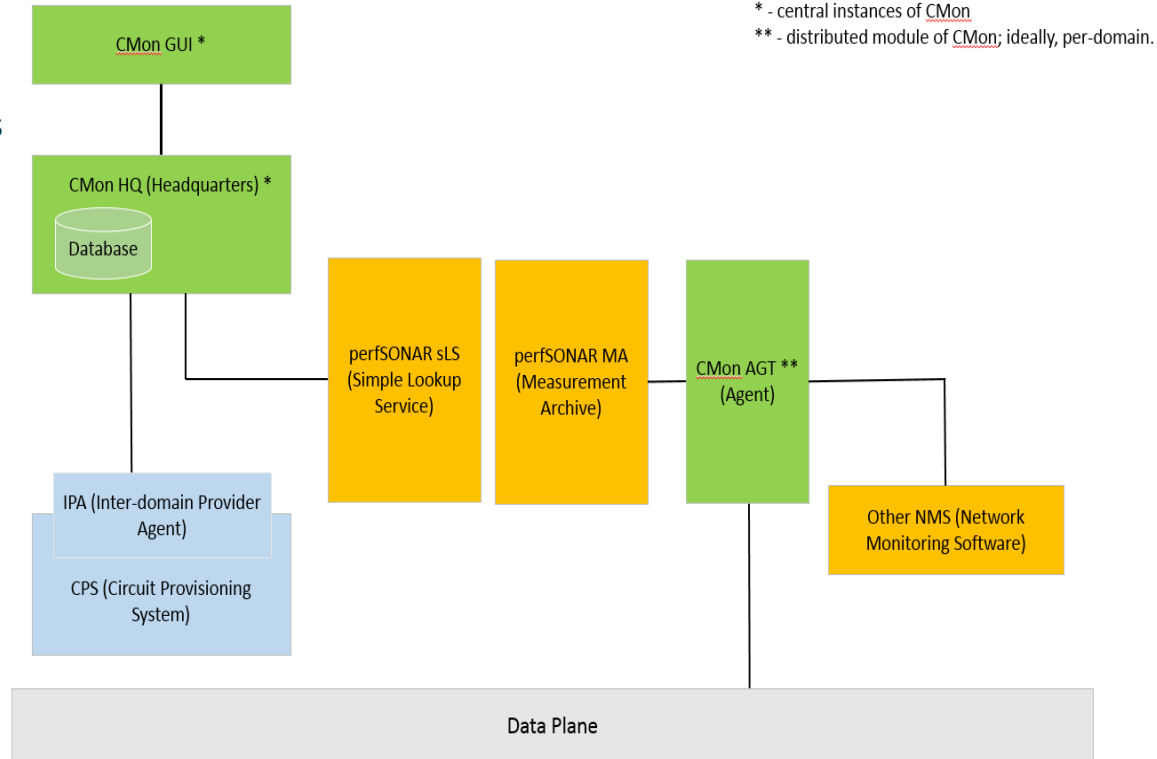
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- Unified platform for multi-domain circuit monitoring
- Different methods for monitoring data aggregation
 - Active and passive monitoring
- Complete view of monitoring data
 - Designed to provide end-to-end circuit monitoring services with ease, regardless of underlying circuit provisioning system



CMon – Architecture & Design Considerations

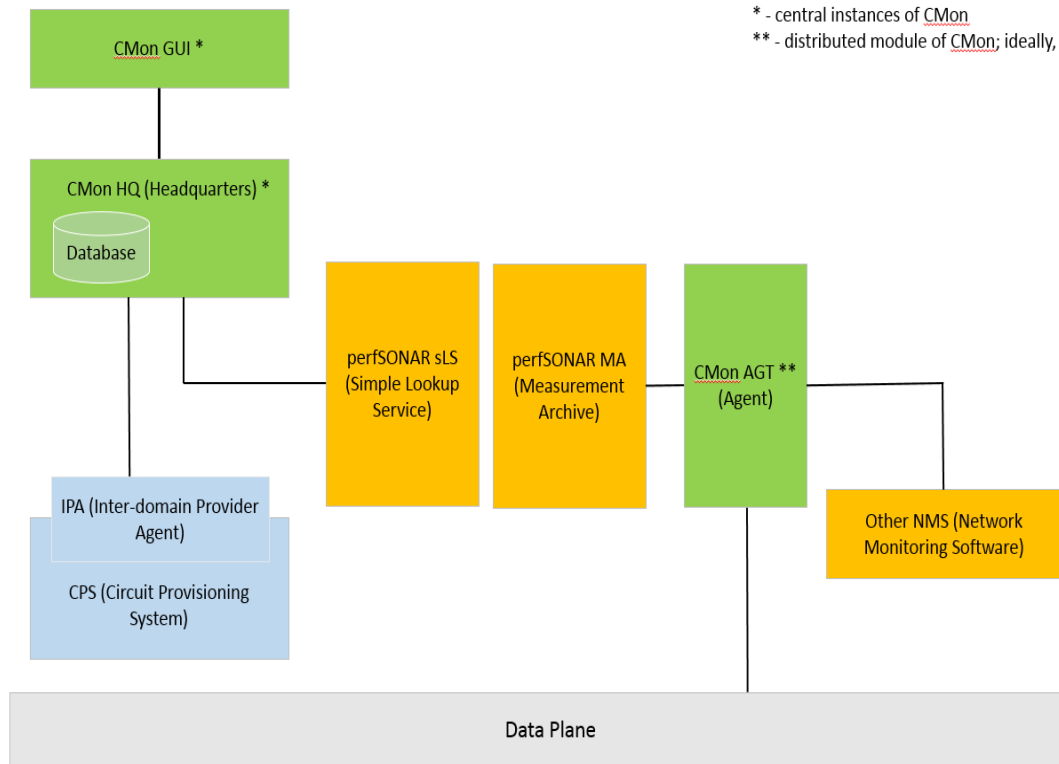
- Central and distributed modules
- Well-defined interfaces between modules
- Loosely coupled
- Scalable



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CMon – Information Workflow

- Circuit Notification
 - Starts at circuit request
 - HQ receives circuit meta data
- Circuit Monitoring
 - Starts when circuit is established
 - Agent starts collecting data in each domain
- Circuit Termination
 - Manually or automatically
 - HQ receives notification



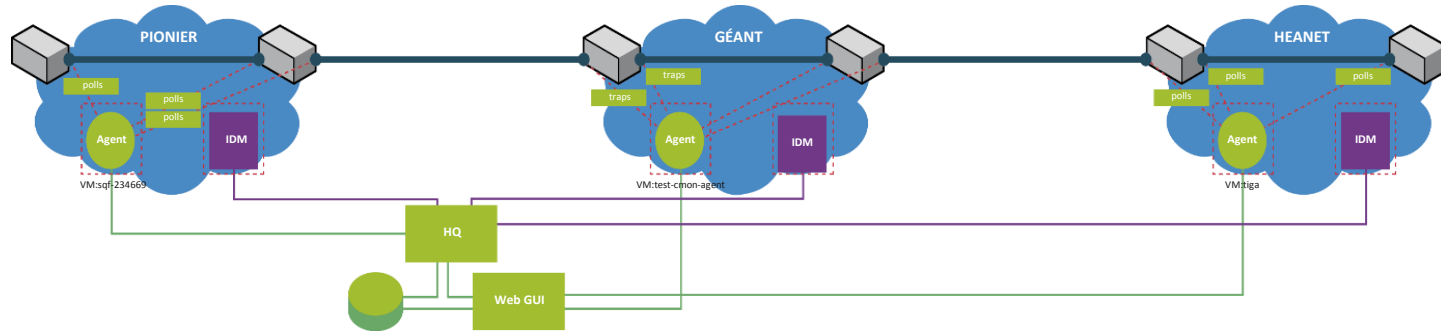
* - central instances of CMon

** - distributed module of CMon; ideally, per-domain.



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CMon - Current Status



- Inter-operable with AutoBAHN v3.x
- More NRENs signing up
- Catering to static user panel
- Evaluating integration with other monitoring systems...



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CMon – Roadmap

- October 2015 – Release v1.1
 - EduGAIN integration
 - More metrics to display (packet loss, packet error count)
 - GUI improvements
 - Keep-alive between AGTs and HQ
- *Other use cases being researched/worked on*
 - GTS
 - AWaaS
- November 2015 – Q1 2016
 - Release v1.2



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What can CMon offer GTS

- Monitoring of links
 - Availability status, packet (errors, discards) and byte count statistics
- Work with GVM
 - Common resource control primitives for API lifecycle management
 - define, reserve, activate, query, deactivate, release, undefined
 - In the context of GVM functional layers, this means:
 - CMon to interface with RCA-VC at the general virtualisation services layer
 - Receive circuit setup (CRM), tear-down (CTM) notification messages at HQ
 - AGT monitors circuits when activated, until tear-down; collects metrics
 - Alert upon hitting threshold
 - Explore if metrics can be retrieved via Junos



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Conclusion

- For more
 - <https://forge.geant.net/forge/display/cmon/Home>
 - Email us: cmon-dev@geant.net
 - Participate in pilot and beyond
 - Collaboration, Ideas
 - <http://www.terena.org/publications/tnc2014-proceedings/>
 - CMon GUI: <http://test-cmon-gui.geant.net> (EduGAIN enabled)



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Thank you

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