

Deployment considerations draft-ietf-alto-deployments-08

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Status of draft-ietf-alto-deployments

Version -08

- ALTO charter: An **informational document** discussing **deployment related issues** and documenting **lessons learned from early implementation experiences**
 - Previous version -07
 - Updates mainly in section 3 for non-P2P deployments
 - Additional author
 - Current version -08
 - Reorganization of the table of content, therefore the diff looks significant
 - **However: Hardly any content deleted – just a better story line**
 - Selected additions of content (see next slides)
 - ... more will follow
- ➔ **-08 is intended as baseline ToC for upcoming improvements**

New Table of Content in -08

Many Changes – But Mainly Reorganization

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Major Changes in -08

List Part 1

- **Section 2 “General Considerations”**

- New home for Section 2.2.2 “Information Exposure Models” on map service vs. ECS
- New text in Section 2.2.3 “More Advanced Deployments” on single server vs. multiple servers, cascaded servers, etc.

- **Section 3 “Deployment Considerations by ISPs”**

- Improved text in Section 3.1 “Objectives for the Guidance to Applications”
- Section 3.2 “Provisioning of ALTO Maps”
 - Empty section in previous versions (!)
 - Initial text on data sources is based on various considerations previously present in other sections
 - Further improvements planned in next version
- New home for Section 3.3 “Known Limitations of ALTO”
- Significant rewording of Section 3.4 “Map Examples for Different Types of ISPs”
 - Original text had numerous editorial issues and bugs
 - Now also includes a small network and cost map example for illustration

Major Changes in -08

List Part 2

- **Section 4 “Using ALTO for P2P Traffic Optimization” and Section 5 “Using ALTO for CDNs”**
 - Proposal of a common structure for the different potential ALTO use cases
 - No significant text additions in -08
- **New Section 6 “Other Use Cases”**
 - Intended as a brief summary and reference to other suggested ALTO deployment scenarios
 - Structure is still to be done – current version is just an example:
 - Section 6.1. “Monitoring Data Reporting” → Empty
 - Section 6.2 “Virtual Private Networks (VPNs)” → Empty
 - Section 6.3 “In-Network Caching”
 - Addressing draft-deng-alto-p2pcache (requested by the authors)
- Moving **Section “Monitoring ALTO”** to Appendix
 - Performance directorate review identified numerous issues
 - Future structure unclear (cf. next slide)

Open Issue: “Monitoring ALTO”

Originally Section 6.3, Currently Appendix A

- **Content:** A monitoring infrastructure to assess the benefits of ALTO
 - **Monitoring metrics definition**, e.g. reduction of inter-domain traffic, reduction of hop-count, application download rate (**NOT draft-wu-alto-te-metrics** etc.)
 - **Monitoring data sources**, e.g., different log servers, P2P clients, OAM systems
 - **Monitoring structure**, e. g., how to orchestrate data
 - **Issues** noted by **performance directorate review**
 - Monitoring metrics are **not formally defined**
 - Metrics that quantify the benefits of ALTO **depend on the use case**
 - Measurement is challenging due to **required data exchange** (e.g., ISP vs. P2P operator)
 - **Suggestions for replacement of original Section 6.3 – to be discussed**
 - **No formal definition of metrics** in draft-ietf-alto-deployments
 - **Paragraph for each use case** that discusses how to monitor the benefits of ALTO, but no formal recommendations
- ➔ **Any feedback? Objections?**

Summary and Next steps

- Status of -08: Significant changes, but further updates are needed
- Planned next steps
 - Additional text on provisioning of ALTO Maps in Section 3.2
 - ➔ **Explanation of potential data sources in real networks**
 - Deployment consideration for P2P and CDN in Sections 4 and 5
 - ➔ **Text has to be revised**
 - Briefly reference other proposed ALTO use cases in Section 6
 - ➔ Current list based on existing Internet Drafts, **further suggestions?**
 - “Monitoring ALTO” considerations (originally Section 6.3, currently Appendix A)
 - ➔ **Address performance directorate review** (cf. previous slide)
 - “API between ALTO Client and Application” (currently Appendix B)
 - ➔ Currently empty section, **remove?**