

DMM Framework based on Functional Elements

draft-liebsch-dmm-framework-analysis-02

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DMM WG

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Preamble..

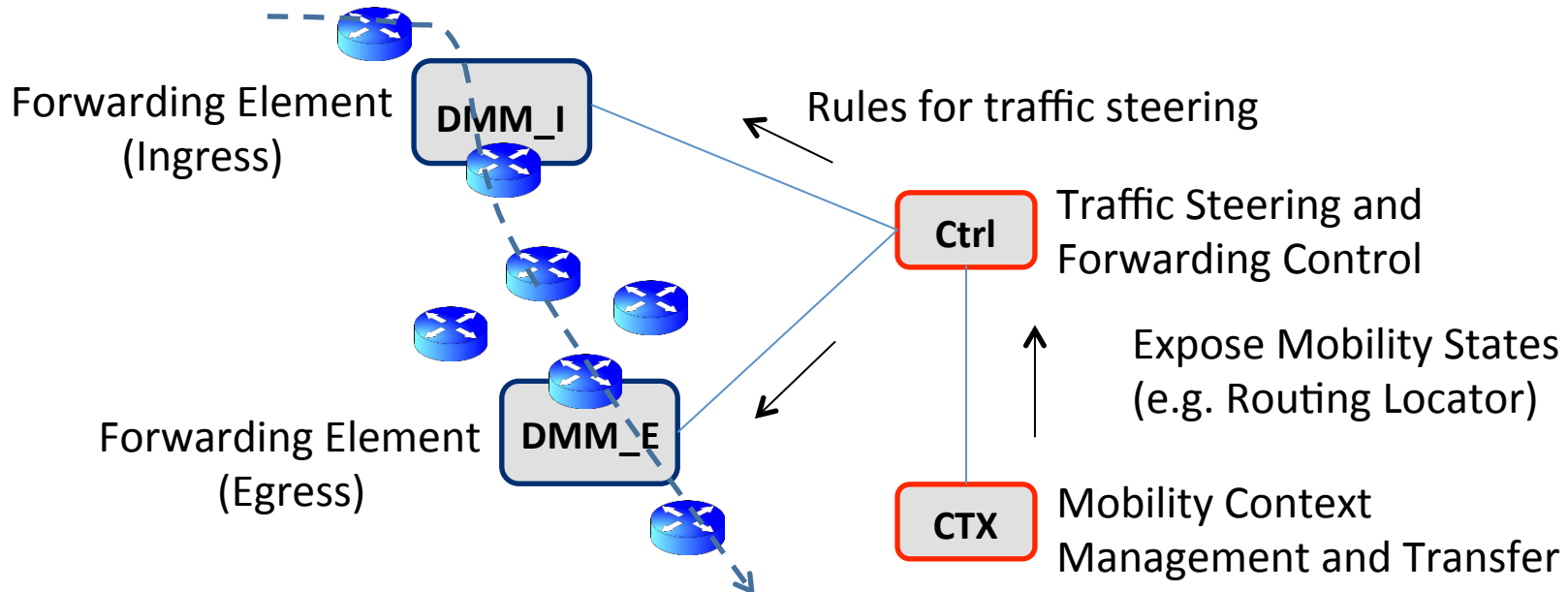
- DMM can be enabled by deployment
 - Mobility protocols and components
 - Other components, e.g. Transport Network
 - Interworking between these components
- Proven technology is available in operators' TN
 - IP, IP-MPLS, SDN technology
- Objectives
 - Provisioning of technology to enable operators with tools to deploy DMM in their network
 - Consider extensions of existing protocol functions
 - Consider provisioning of hooks and definition of attributes to enable interworking
 - Increase gain in deploying DMM
 - Increased networking performance (data path)
 - Lower costs (transport, encapsulation, data path)

Methodology

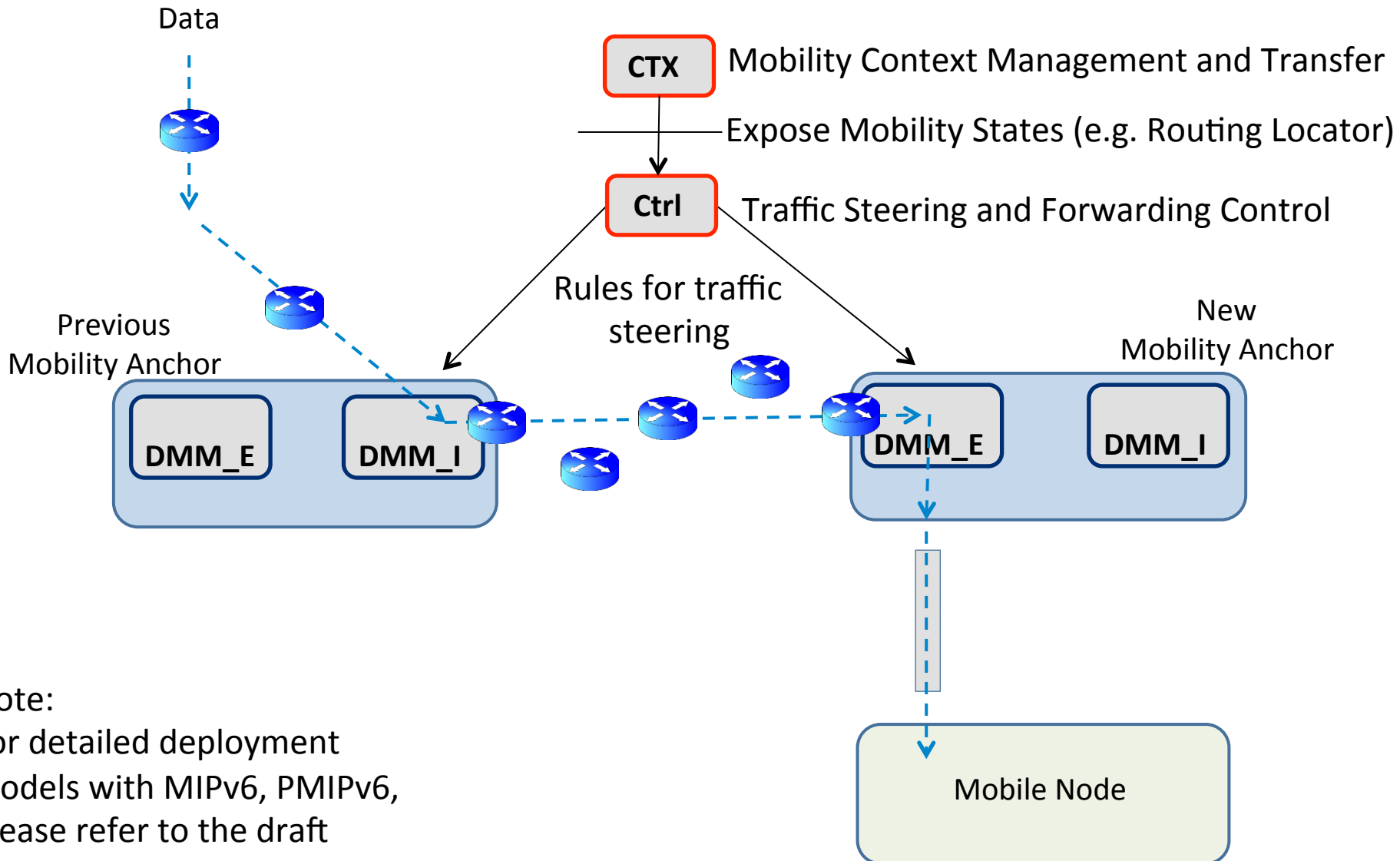
- A protocol-agnostic **Functional Framework** supports building DMM solutions around existing mobility protocols
 - Enables various deployment models (self contained mobility protocols or by system integration)
- Used to build missing capabilities (gaps) to accomplish DMM
 - Distributed mobility context management and transfer between distributed anchors
 - Traffic steering after runtime anchor change
 - Advanced traffic steering by mobility state exposure and inter-working with transport network (Forwarding Control, Forwarding Elements)

Methodology

- This framework document defines 4 Functional Elements (FE) to close identified gaps (mobility control and data path management)
 - Supports the specification of required protocol gaps
- Document defines clear reference points between FEs
 - Supports the specification of hooks/attributes to enable optimal deployment

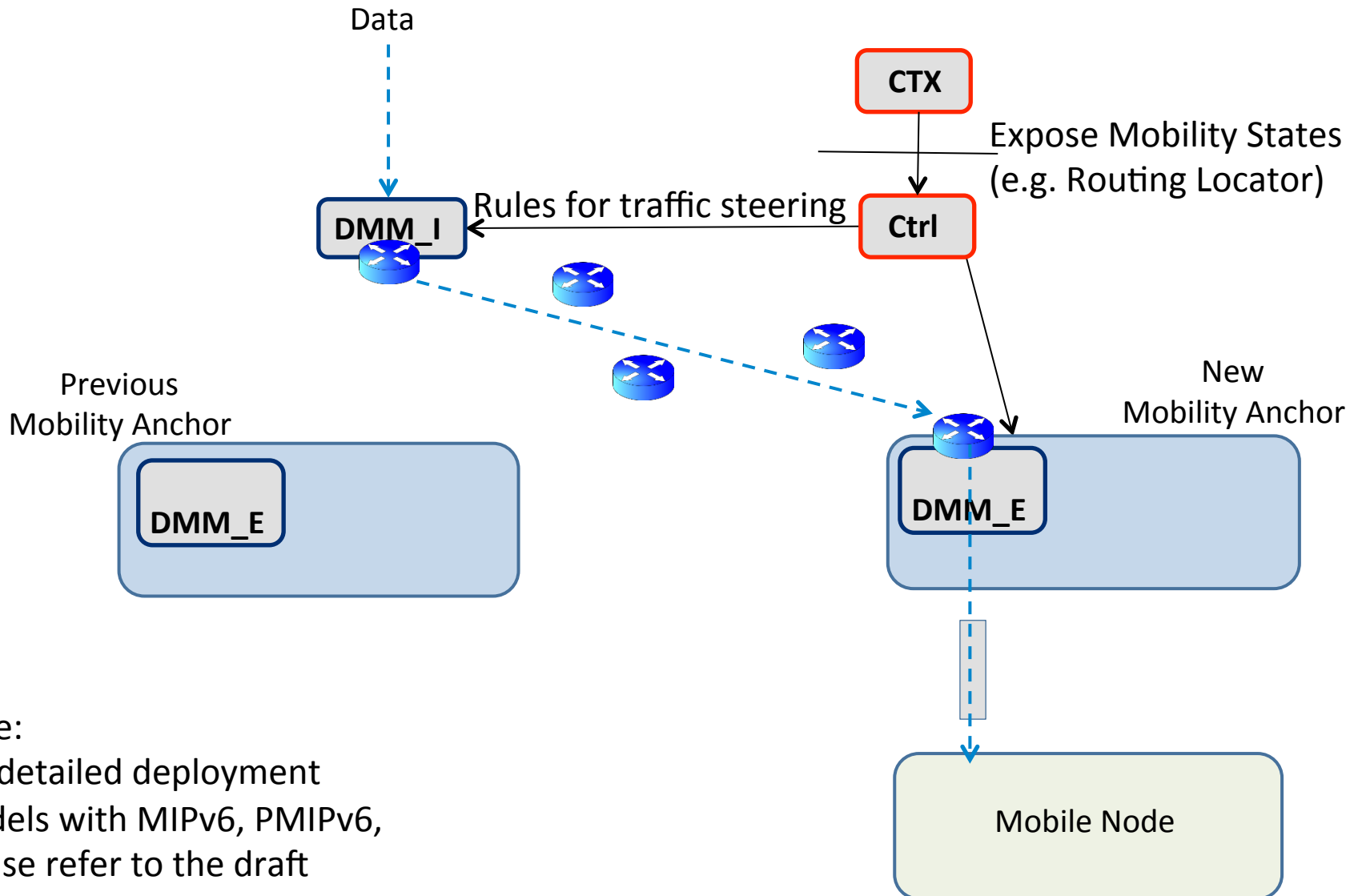


One abstract deployment model



Note:
For detailed deployment models with MIPv6, PMIPv6, please refer to the draft

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Summary ..

What's Next?

- DMM analysis and specification of extensions should be done on a functional level
- Proposed functional framework enables the specification of protocol gaps and hooks for optimal deployment
- WG indicated large interest in working on a framework at IETF87
- Framework considered mature
 - Received comments will go into next revision
 - Publish with reasonable effort and low latency
 - Considered as suitable documentation to support next steps in the DMM WG