

The Services & Technical Infrastructure Associated with Digital Identifiers

- Service infrastructure provided by CrossRef & DOI
- Technical infrastructure behind the DOI (a simplified view)
- CrossRef / DOI community
- Support infrastructure (what's needed to keep it running)

I have 4 slides, not including this one ☺

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Service Infrastructure

DOI

DOI as a URI

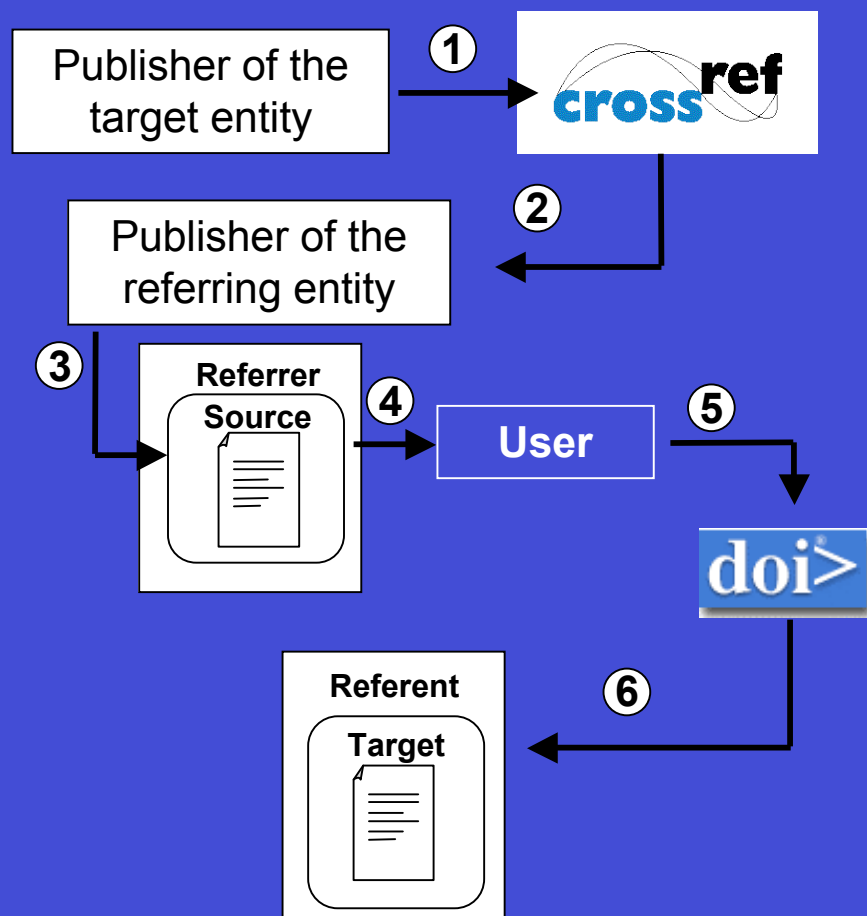


`HTTP://dx.doi.org/10.1016/S0040-4039(01)80789-9`

Resolver address

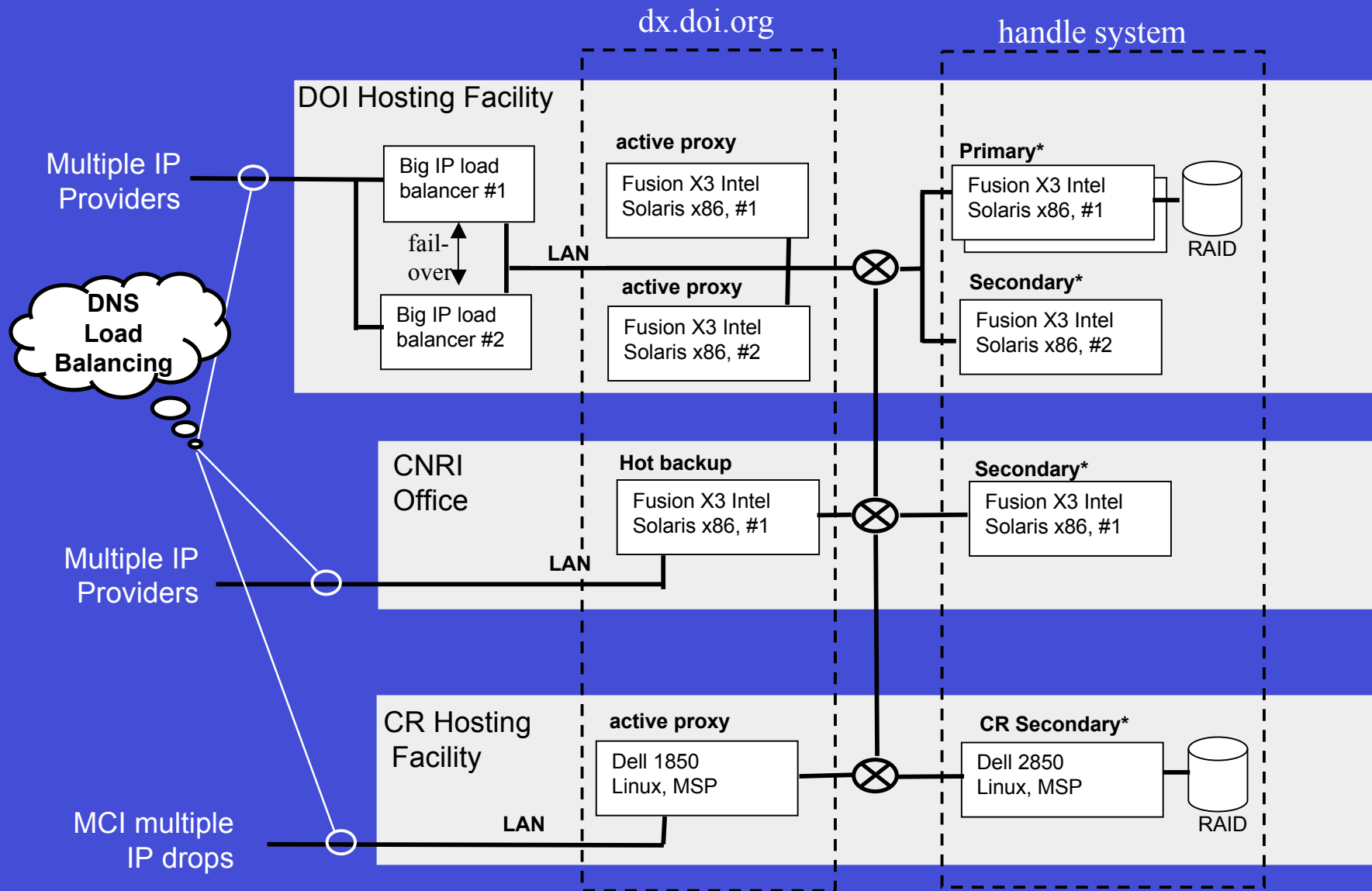
Prefix

Suffix



- 1. Deposit article meta-data to CrossRef with the DOI & URL**
- 2. Query CrossRef for the DOI using meta-data**
- 3. Present the referring article to the user with reference links active as DOIs**
- 4. The user clicks on a link**
- 5. Their browser sends the link to the DOI Resolver**
- 6. The Resolver finds the URL and re-directs the user to the target document**

Technical Infrastructure



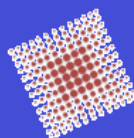
Community Infrastructure



- Operates the metadata look-up service (DOI deposits and queries)
- Community of users (publishers, libraries, aggregators, secondaries...)
- Monitor & maintain the integrity of linking services (metadata and link quality)



- Develops and maintains the DOI standard
- DOI advocacy
- Community of users (world wide registration agencies)



Corporation for National Research Initiatives

- Develops and maintains the Handle system
- Technology partner to the IDF
- Broad technical advocacy

Support Infrastructure - dedicated staffing (Crossref:7, CNRI:2-3, IDF:1+many)

- Support needed to indoctrinate new participants and over-see existing participants (lots of interfacing between *people*)
 - data construction issues, not everyone is an XML expert
 - technology issues, “so what is this HTTP Post thingy ?”
 - meta data issues, semantics are *much* harder than syntax
- Staff to keep the systems running (backups, updates, bug fixes ...)
- Creative people to move things forward
 - add new features (OpenURL, cited-by, free text queries, multiple resolution)
 - maintain service quality (static identifiers live in a *dynamic* world!)

A good identifier is much more than a string of text