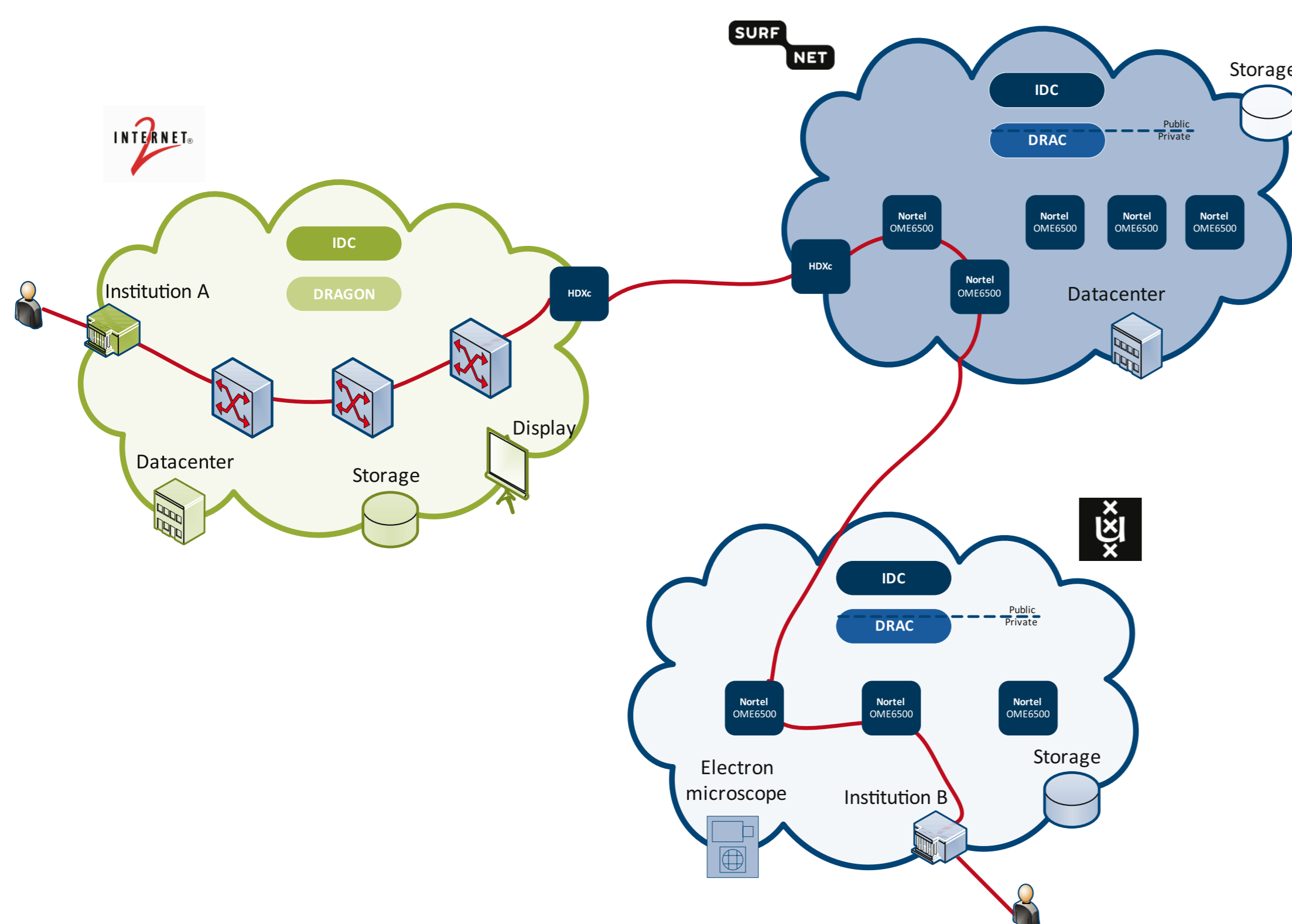


Heterogeneous Multi-domain Dynamic Lightpaths



National Research and Education Networks (NRENs) have developed systems for requesting dynamic network connections. This demonstration is a result of the effort to integrate the Dynamic Resource Allocation Controller (DRAC) with the Inter-Domain Controller (IDC). We show that interoperability between these heterogeneous systems is possible. This demonstration is being carried out under the GigaPort3 programme.



SURFnet/UvA-Internet2 Multi-domain Scenario

The SURFnet/UvA network consists of a heterogeneous set of layer1 and layer2 Networks Elements (NEs) that are controlled through the Path Setup Subcomponent (PSS) by DRAC and SNMP. The Control Plane (CP) in the Internet2 network is called DRAGON and sets up label-switched paths for circuit provisioning. The IDC performs the Network Service Plane (NSP) functions in both domains.

Conclusions and Future Work

This demonstration shows that it is possible to setup multi-domain paths between networks with different Control-Planes and different underlying network technologies, using common NSPs and an adaptation layer implemented in the PSS. Nortel and SURFnet aim to make DRAC available as open source software as of April 2010. In the future, heterogeneous NSPs will have a common Network-Service Interface to interoperate using their full capabilities.

