# Blueprint Proposal: SEBA

<table>
<thead>
<tr>
<th>Case Attributes</th>
<th>Description</th>
<th>Informational</th>
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<tbody>
<tr>
<td><strong>Type</strong></td>
<td>New blueprint for fixed wireline access within Network Cloud Blueprint family</td>
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<td><strong>Blueprint Family - Proposed Name</strong></td>
<td>Network Cloud</td>
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<td><strong>Use Case</strong></td>
<td>Virtual broadband access (XGS-PON - Higher bandwidth, symmetric version of GPON)</td>
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<tr>
<td><strong>Blueprint proposed Name</strong></td>
<td>SDN Enabled Broadband Access (SEBA)</td>
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<td><strong>Scale &amp; Type</strong></td>
<td>3 servers per POD x86 and ARM (with 8-16 cores each)</td>
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<td><strong>Applications</strong></td>
<td>Virtual broadband access – vOLT access &amp; aggregation (5000 edge locations)</td>
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<td><strong>Power Restrictions</strong></td>
<td>Less than 1 kW. NEBS and 48V DC</td>
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<td><strong>Infrastructure orchestration</strong></td>
<td>OS - Ubuntu 16.x Docker 1.13.1 or above / K8 1.10.2 or above Container Orchestration Under Cloud Orchestration - Airship v1.0 Open Network Operating System (ONOS) and XOS VOLTHA (Virtual Optical Line Terminal Hardware Abstraction – CORD project) Network Edge Mediator (NEM) ONAP and OSAM EMS/NMS Adaptor</td>
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<td><strong>SDN</strong></td>
<td>ONOS OF &amp; Redfish</td>
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<td><strong>Workload Type</strong></td>
<td>Containers</td>
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<td><strong>Additional Details</strong></td>
<td>Akraino based community blueprint, Full Automation (Airship based + Tenant Container support) Cloud layer hardened for production Current SEBA POD contains network elements, compute nodes, and software components. Aggregation and management switches Three compute nodes required for K8 redundancy About twenty containers running ONOS, XDS, VOLTHA, NEM, etc Supports up to 16 OLTs.</td>
<td>See attachment for additional details</td>
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Akraino SEBA Blueprint SW Stack

- **Akraino GUI**
  - Dashboard
  - Admin GUI
  - User GUI

- **Akraino Workflow**
  - Platform Workflows
  - Camunda
  - Docker Repo

- **Edge Application and APIs**
  - APIs
  - Applications & VNFs
  - EMS/NMS Adaptor
  - VOLTHA
  - OpenFlow
  - NEM
  - Redfish

- **Edge Application and Orchestration**
  - Lightweight Edge App Orchestration
  - ONOS
  - XOS

- **NFV Orchestration**
  - NFV & Domain Specific Or orchestrator
  - ONAP
  - OSAM

- **Edge Platform Software SKU**
  - Infra Orchestration
  - Kubernetes
  - SDS(Ceph)
  - Calico
  - Ubuntu

- **Network Edge**
  - Multinode Cluster
  - Uniserver

- **Network Edge Micro Services**

- **Customer Edge**

- **Akraino Upper Cloud Lifecycle Tools**

- **Akraino Chest**

- **Declarative Configuration**

- **AI Tools box**

- **ETE Operations tools**

- **ETE Security tools**

- **Narad (Inventory)**

- **ETE Testing OpenStack Tempest**

- **PINC (N/W Orchestration)**

- **Documentation**

Source: AT&T

11/15/2018